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ABSTRACT

Commonwealth Ministries of Education were asked to report on how they are undertaking the improvement of the quality of basic education in their respective countries. The papers in this volume focus on: (1) Botswana; (2) Namibia; and (3) Pakistan. Charts and statistical data support each country's report. (EH)

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ED 461 535

Eleventh Conference of Commonwealth Education Ministers

Barbados, 29 October - 2 November 1990

AGENDA ITEM 2

IMPROVING THE QUALITY OF BASIC EDUCATION

COUNTRY PAPERS (VOLUME 7)

BOTSWANA

NAMIBIA

PAKISTAN

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INTRODUCTION

Commonwealth Ministries of Education were asked to report on how they are undertaking to improve the quality of basic education in their countries, the main theme of the Eleventh Conference of Commonwealth Education Ministers.

Volume 7 of these country papers on Conference Agenda Item 2, **Improving the Quality of Basic Education,** contains some of these country papers; others are similarly bound and issued in separate volumes.

For ease of reference each paper is prefaced by a coloured cover sheet and each page is given a coded folio number as shown below.

BOTSWANA	BOT 1 - 68
NAMIBIA	NAM 1 - 30
PAKISTAN	PAK 1 - 46

Education Programme
Human Resource Development Group
Commonwealth Secretariat
July 1990

BOTSWANA

TABLE OF CONTENTS

Page No.

PART I INTRODUCTION 1

PART II GOVERNMENT POLICY ON BASIC EDUCATION 4

PART III IMPLEMENTING GOVERNMENT POLICIES ON BASIC EDUCATION 8

A. Programmes to Improve the Quality of Teaching and Administration/ Supervision 8

B. Curriculum Development and Instructional Reform 20

C. Efforts to Enhance Communication and Consultation 28

D. Organizational and Structural Change 32

E. Educational Research and Evaluation 37

PART IV RESOURCES AND EDUCATIONAL DEVELOPMENT 39

BEYOND BASIC EDUCATION: A CONCLUDING COMMENT 41

REFERENCES

APPENDICES:

A: Ministry of Education Organization Chart

B: Overview of Ministry of Education Organizational Responsibilities

C: Educational Research in Botswana

D: Education Statistics

PART I. INTRODUCTION

The focus of this paper is upon steps which are being taken in Botswana to improve the quality of basic education for all children and youth. It may be useful to the reader, however, to view these qualitative efforts against a somewhat larger, but brief, backdrop of development generally in the country.

Botswana achieved independence in 1966. At that time the population was estimated to be 600,000 and the country was classified as one of the 25 poorest countries in the world. Since then, its population has more than doubled to 1.3 million (3.3 percent per annum currently) and it is now rated as a lower income country. The economic growth rate has averaged 12.9 percent annually. In 1987, Botswana's official per capita gross development product stood at US$1050, with foreign exchange reserves having risen to a substantial level.

With its strong economy and stable multi-party democracy, Botswana has made significant improvements in the quality of life for its people. Among others, this may be noted particularly in the areas of health and education. For example, average life expectancies have risen to 58 years for males and 62 years for females. Infant mortality has declined to 63.5 thousand, and about 85 percent of the population presently live within a 15 kilometre radius of a health care facility.

The expansion of educational opportunity is likewise impressive. In 1960, it is estimated that less than half of all primary school age children (standards 1-7) attended school. Today that figure is 85 percent and it is estimated that by 1997 at least 90 percent of the children will go through the nine-year basic education course. The numbers of primary school pupils increased during the first 20 years of Independence from 71,546 to 235,941, a growth of 330 percent.

Secondary education has experienced very rapid growth also during the first 20 years of independence, increasing from only 1531 students in 1966 to 35,966 in 1986. Today, junior secondary schools (Forms 1 and 2) enroll 63 percent of the standard 7 leavers and senior secondary schools (Forms 3, 4 and 5) admit 41 percent of the Form 2 completers. The University of Botswana enrollment has increased from 66 students in 1966 to 3,149 in 1989-90.

The infrastructure to accommodate the rapidly rising student enrollments has, of course, had to grow accordingly. Many more schools and several teacher training colleges have had to be constructed and staffed and curricular and instructional materials developed to keep pace with the growing demands for education. These educational developments are reflected in the recurrent budget which rose from P0.92 million in 1966 to P162.09 million twenty years later.

While the expansion of educational opportunity since independence is viewed with considerable pride, many problems and concerns regarding access to education still face government officials. For example: what can be done about the missing primary school-age children? How can formal education best be provided to children in remote areas? What can be done about the shortage of 2000 plus primary school classrooms? How quickly can the required number of junior secondary schools be constructed and staffed in order to provide nine years of education for all? How can reliance upon expatriate secondary teachers be reduced? To what degree should access to senior secondary education be expanded? What role can the schools play in addressing the disturbing problem of 25 percent (and rising) unemployment? The Seventh National Development Plan (NDP 7), now in its formative stages, will address these and many related issues regarding expansion of educational opportunities in Botswana.

During this era of extraordinary educational expansion, the question of the quality of education which children and youth are receiving has been getting much, if not equal, attention from the Government. As a result of this concern, many measures have been introduced across the educational spectrum since independence to address problems related to educational quality and to improve the effectiveness of various programmes. The report of the National Commission on Education (1977), however, may be regarded as the starting point for Botswana's development of a comprehensive, long-term plan for both the expansion of education in the country as well as addressing issues of quality. The research of the Commission had confirmed the widely held perceptions among Batswana at that time that the qualitative standards for education were unacceptably low.

The findings and recommendations of the National Commission on Education formed the basis for the National Policy on Education which was set forth in Government Paper No. I of 1977. Thirteen years later, in 1990, those policies still largely guide educational development in Botswana; however, there is increasing recognition, in view of the multitude of changes in the Botswana society in recent years, that it may be nearing the time for another comprehensive study of the educational system.

The Government of Botswana fully endorses the "World Declaration on Education for All" as adopted at the World Conference on Education for All (March 1990) and it accepts the challenges that are implicit in belief "that education is a fundamental right for all people, women and men, of all ages, throughout our world."

PART II. GOVERNMENT POLICY ON BASIC EDUCATION

As noted earlier, the National Policy on Education was described in 1977 which has had the effect of guiding most educational development efforts toward improving access to and the quality of education over the intervening 13 years. Successive five-year national development plans have in large measure set forth intermediate steps which the Government intended to take to implement these policies.

While the National Policy on Education (1977) described a broadly comprehensive vision for educational development in Botswana, there are key elements of it which seem to relate more directly than others to the theme of improving the quality of basic education. The following selected statements from that policy, sometimes paraphrased, are intended to convey the essence of where Botswana is heading and what it needs to do to provide a better quality nine-year education for all of its young citizens.

Goals for Education

1. The educational system must contribute to the national principles of democracy, development, self-reliance and unity which, collectively, lead to social harmony (Kagisano) in the society. Adapting the education system to the national principles will require substantial changes throughout the system, from the classroom in the village to the headquarters level.

Basic Education

1. Highest priority must be given to strengthening primary education so that all children have a firm educational foundation.

2. Nine years of education must be made available to all children. (This is now accepted as the meaning of basic education in Botswana.)

3. Differences in educational quality between rural and urban schools must be eliminated in accordance with the principles of unity and social justice.

4. The purpose of school at all levels will be to prepare children for a useful, productive life in the real world. They should have the basic skills of literacy and numeracy and the knowledge that will make them self-reliant later in life.

5. Primary education will aim to make children literate, first in Setswana and then in English.

Measures to Improve Primary Education

1. Teaching and teacher training will be improved. Steps will be taken to improve the status of teaching service, strengthen the training provided in the teacher training colleges and at the Faculty of Education and provide additional professional contact for teachers in the field.

2. Curriculum development, led by a new department of curriculum development, will include syllabus revision; the establishment of a basic core with a concentration on Setswana, English and mathematics; the development of learning sequences from the known to the unknown; the incorporation of more simple language in readers and textbooks; more concentration on Botswana and Africa; and the provision of syllabuses and teachers guides to every teacher.

3. The examination system will be changed to reflect the new curriculum.

4. The automatic promotion system will be altered to incorporate a plan for continuously assessing pupils' progress.

5. The primary school cycle will be reduced from seven to six years when the quality of primary education has been sufficiently strengthened.

Junior Secondary Education

1. The present system of junior secondary education which is highly selective and academic in its orientation will be changed to an intermediate form of education eventually comprising years 7, 8 and 9. The intermediate school will be more similar to the primary schools in its educational objectives.

2. The schools will be day rather than boarding schools, thus reducing costs and increasing links between the school and community.

3. The curriculum of the intermediate level school will represent a continuation of the primary curriculum with the aim to provide all children with:

a. language tools needed in either further study or work.

b. a solid foundation in mathematics skills.

c. an understanding of scientific and technical subjects, based on examples in their own environment.

d. a sense of the nature of their society and their role in it.

e. an orientation toward further learning, whether formal or non-formal.

f. an orientation toward work in the real world.

4. The examination system at the secondary school level will be substantially modified to take account of the changed goals, strategy and structure of secondary education.

Guidance and Counselling

1. In order to reduce dropouts from school due to unwanted pregnancies, programmes of instruction and education will be developed to encourage personal responsibility on the part of young people.

2. The system of careers guidance will be strengthened.

Consultation

1. The education system is of deep concern to virtually every Motswana, and Government intends to consult with all of those affected by the various parts of the policy-parents, teachers, students, local authorities and others--to the greatest extent possible.

2. There will be information campaigns and arrangements for two-way communication on the objectives of the new educational development strategy.

A Concluding Comment

Much work to realize the goals and implement the educational policies set forth in the National Policy paper has been underway during the decade of the eighties. Certain priorities have been established, plans made, projects designed and steps taken toward implementation. In retrospect, it seems accurate to state that Botswana has accomplished a great deal educationally during this period, and that important, necessary and substantial strides have been taken toward the vision of a greatly improved basic education for all. But no one claims that Botswana has arrived at its destination of a high quality educational programme for all. There is an increasing realization that solutions to many educational problems and increasing the efficiency and effectiveness of the educational system is a long-term, on-going process. The experience of countries around the globe points clearly to the conclusion that there are no "quick fixes" for complex educational problems.

As this paper is being prepared, the various agencies of the Botswana Government are in the late stages of formulating proposals for the seventh National Development Plan (NDP 7). The plan will call for further rapid expansion of the educational system in order that more Batswana may gain access to it and reap its benefits. The plan will also put forward those programme proposals which are intended to address the Government's concern with providing a more meaningful and effective educational experience for all children.

PART III. IMPLEMENTING GOVERNMENT POLICIES

A wide range of programmes and activities have been undertaken by the Ministry of Education over the past decade in response to the directions set out in the 1977 statement of National Policy on Education. The major initiatives, or reform efforts, which have been undertaken will be presented and briefly discussed. In most cases they should be regarded as in "process" rather than completed efforts. For the sake of convenience, they are grouped into the following five categories; however, the reader should understand that there is a considerable amount of overlap among the categories:

1. Steps taken to improve the quality of teaching and administration/supervision.
2. Steps taken to develop a more relevant curriculum and more effective teaching strategies.
3. Steps taken to enhance communication and consultation.
4. Organizational changes to facilitate coordination and efficiency.
5. Educational research in Botswana.

A. PROGRAMMES TO IMPROVE THE QUALITY OF TEACHING AND ADMINISTRATION/SUPERVISION

The programmes designed to improve the quality of teaching and adminstration/supervision in the basic education system in Botswana are a combination of preservice and inservice education components. For purposes of this paper, preservice education is defined as a period of full-time study leading to a higher qualification for those who successfully complete the course. Inservice education, on the other hand, refers to short-term, specially designed courses (workshops, seminars, conferences, etc.) for serving teachers and administrators which do not lead to a higher qualification. (It should be noted here that the lack of any procedures whereby inservice work can be applied to a higher qualification or salary increase is a cause of some considerable concern to teachers and administrators who, generally, are heavily involved with inservice programmes.)

1. Primary Preservice Education Reform Efforts

a. The establishment of a Department of Primary Education at the University of Botswana. At the time the National Commission on Education study was completed, there were three Primary Teacher Training Colleges in Botswana. The colleges were staffed by approximately an equal mix of Batswana and expatriates, most of whom had been trained as secondary school teachers and, thus, were lacking in primary school experience. The Commission also found that, traditionally, teacher training in Botswana had been a rather isolated undertaking, somewhat divorced from the work of the schools and from the various support services available to teachers.

To address the problem of staffing the Primary Teacher Training Colleges with Batswana primary school teacher-educators, a Department of Primary Education was established at the University of Botswana which makes available a BEd (primary) degree to experienced primary school teachers. The first staffing priority for graduates of this programme was the Primary Teacher Training Colleges; however, from the beginning, some were posted to the Ministry of Education as education officers.

The Department of Primary Education also offers a two-year diploma programme, whose graduates return to positions in the primary schools. Admission to the Department of Primary Education is through a mature-age entry scheme, since few primary school teachers have completed secondary school (O levels).

Donor assistance was available for the 10-year start-up of the Department, and included personnel to assist with programme development and teaching, and training for Batswana members of staff. With the phase-out of external assistance in 1991, the Department will be staffed entirely by Batswana who hold either the Master's degree or the doctorate.

Six cohorts (96 students) have now graduated from the Department of Primary Education. Over 75 percent of the Primary Teacher Training Colleges lecturers are products of this programme. It should also be noted that approximately one-half of the Education Officers are graduates of the Department.

This year (1990), for the first time, the number of degree graduates exceeded the number of vacancies in the Colleges and the education officer cadre, with the result that some BEd degree holders were posted back to the primary schools. The Ministry of Education is currently addressing the longer-term policy question of the most beneficial utilization of primary education degree holders in roles other than as teacher educators and education officers.

b. The development of an MEd degree with primary education specializations. In order to address needs for more highly trained personnel in the education sector and to reduce overseas training costs, the Faculty of Education at the University of Botswana initiated a two-year MEd programme in 1988 which incorporates, at present, six primary specializations (mathematics, science, social studies, English, primary education, and administration). The primary education component of the MEd degree was developed, in part, to prepare a cadre of lecturers holding the Master's degree who could later assume roles in primary colleges of education. A plan to upgrade the training of primary teachers from a two-year certificate to a three-year diploma will be proposed by the Ministry of Education for National Development Plan 7. There also is a trend toward placing holders of MEd degrees in the education officer cadre, the Department of Curriculum Development and Evaluation, and in other ministerial posts.

c. Programmes to develop the primary teacher training colleges: The self-study process and curriculum development. In addition to changing markedly the preparation and experiential background of those teaching in the Primary Teacher Training Colleges, a long-term programme has been initiated to change more fundamentally the nature of the educational experience for students preparing to become teachers. This reform efforts has involved not only curriculum development, although that is regarded as having central importance, but also an examination of the colleges as a total institution. This work is being conducted through a related series of activities that have become known as the "Self-Study".

The Self-Study process is based on a set of assumptions, including the following: (1) the staffs of the colleges are professionals, and, thus, have valuable insights into the changes which must be made to improve the quality of teacher education; and (2) the staff members must be fully engaged from the very beginning in the process of determining institutional needs and setting priorities for change in their respective colleges.

The Self-Study process involves three stages: (1) An evaluation of the college programme is conducted by its staff using standards and criteria which have been accepted by the staff. (2) A two-day visit is made to the college by a group of 15 or so outside educators from the Ministry of Education, the University, and the other Colleges to review the college operation and to discuss the staff's evaluation. The review team prepares a written report of its observations and recommendations which is widely distributed. A particular effort is made by the review team to identify points of strength in the college programme as well as the changes which are needed. (3) The final step in the Self-Study process is for the principal and staff to prepare a five-year development plan for the college.

The initial assessment of the Self-Study process as a vehicle to facilitate change is that it has been very useful. Several factors may help to account for this conclusion. First, there was a lengthy gestation period with much discussion at several levels before the decision was taken to proceed with the activity. Second, all college lecturers participated through a national workshop in helping to shape the criteria and standards which were used in the evaluation of the colleges. Third, the emphasis throughout the process has been on identifying and solving institutional problems, rather than on negative criticism.

Perhaps another value of the process is that it has helped all involved to see that the improvement of the quality of the preparation programme for primary teachers is dependent on many related factors (for example the ability and motivation of the staff, the quality of the facilities, the nature and skill of the leadership, the background of students, the instructional materials, etc.), and that development must involve a planned, coordinated long-term commitment by both the college staff and the Ministry of Education to the change effort.

A report summarizing the findings and recommendations coming out of the Self-Studies for the four primary colleges was prepared and also given wide distribution within the education community. This analysis of the needs of the colleges was particularly timely in that it provided information which was useful for Ministry of Education officials in preparation of the Seventh National Development Plan.

d. Curriculum development in the Primary Teacher Training Colleges. A plan for curriculum development in the colleges, which was itself an outgrowth of the Self-Study, is now underway. This work is being coordinated by a Curriculum Implementation Committee composed of relevant chief education officers, the college principals and representatives from the Department of Primary Education at the University of Botswana. It has been agreed that the responsibility for teacher training curriculum development will shift to the Curriculum Development Unit in the Ministry of Education when appropriate staffing arrangements are provided in NDP 7.

The chief vehicle for curriculum development is through subject matter panels which meet two or more times annually. Lecturers from the University work with some of the panels while specialists from the Ministry of Education are consultants to others.

The mechanics for approving curriculum changes have essentially been agreed upon. They provide that proposals, which originate with panels, will be reviewed by a broadly representative curriculum coordinating council drawn from the colleges, the Ministry and the University to ensure general acceptability. Of particular current concern to both the colleges and the Ministry of Education is the degree to which certain high priority reforms being introduced into the primary schools are also being incorporated into the various teacher preparation programmes. The Board of Affiliation which links the colleges to the University is the final approving body for all curriculum changes.

2. Primary Education Inservice Programmes

The Ministry of Education is making a heavy investment in inservice education as one important element in improving the quality of basic education. Perhaps the most visible element of this effort is the Education Centre Network, now approximately three-fourths completed, which will eventually consist of 14 facilities strategically located around the country. The network, which will be discussed in greater detail at a later point, is intended to provide the infrastructure necessary to respond to the inservice education needs of teachers, administrators and the Ministry of Education on a sustained basis.

During the developmental phase of the Education Centre Network, a number of large scale inservice education programmes have been implemented. Several have incorporated the "multiplier effect" to extend the reach of the inservice providers. An overview of these activities is presented below.

a. Inservice programmes for primary teachers in the subjects of mathematics, science, English and reading. Two two-year cycles of workshops were conducted for teams of (three) teachers from 90 primary schools. The week-long courses were conducted at six-week intervals, using the facilities of the primary teacher training colleges. Applying the multiplier approach, each team of teachers conducted a similar workshops for teachers in their own school and in a neighbouring school. It is estimated that about 1200 teachers received inservice education through this strategy.

b. Inservice education programmes for primary education officers. A continuing programme of inservice education for education officers who supervise primary schools has been underway since 1981. Typically the workshops are of one-week duration and are conducted two or three times a year. The content of the workshops is determined to a large extent through needs assessments which are carried out by a representative committee of education officers. An ongoing theme of the workshops, however, has dealt with strengthening the instructional leadership role of education officers in relation to certain required inspectoral duties. Increasingly, the education officers are seen as key leaders in introducing new programmes into the primary schools and in marshalling support for their implementation.

c. Inservice education programmes for headteachers. In 1987, Botswana launched a major inservice education programme aimed toward strengthening the leadership in the primary schools. The first two-year cycle involved all headteachers (approximately 575) in four workshops of one-week duration. The content of the workshops, which drew heavily from periodic needs assessments, was balanced between administrative skills development and curriculum/instructional concerns. An important feature of these workshops was the "homework" required of each headteacher between workshops. As a part of this responsibility, the headteachers were expected to share their own workshop experiences with their respective staffs.

The human resources needed to mount these workshops were considerable, particularly in view of the fact that four workshops for 50 to 75 headteachers would be underway simultaneously. Presenters for the workshops were drawn from the ranks of the education officers, the primary teacher training colleges, Ministry officials, the University and occasionally from among the headteachers themselves. Planning/preparation sessions for the presenters were usually held before each workshop.

d. Workshops for school leadership teams. During the course of the headteacher workshops, the potential value of involving the promoted staff (head, deputy and senior teachers) as a group in workshops became more apparent. This led to the design of a round of four-day workshops for the so-called leadership teams from each primary school in the country (approximately 1800 teachers in all). A key assumption in this plan was that the primary education officers would be capable of organizing and carrying out the workshops with a minimum of supervision from the headquarters, thus taking another step along the road to greater decentralization. It was also planned that each leadership team would conduct a follow-up school-based workshop for their own school staff. Through this series of inservice education programmes, all primary school teachers (approximately 8,500) will have participated in organized inservice meetings over the period of approximately eight months.

The topics to be covered in the workshops for the leadership teams are the following:

1) Developing team leadership in the schools

2) The project method of teaching

3) The elements of "good" teaching, including the use of Botswana Teaching Competency Instruments

4) The principles and practices of "good" (clinical) supervision

5) How to plan, organize and carry out school-based workshops.

A series of meetings with education officers was held over a period of several months to (a) plan the leadership teams workshops; (b) to discuss in depth the various issues which the workshops would be dealing with; and (c) to develop and distribute workshop materials. The education officers assumed full responsibility for establishing workshop dates, venues, arranging for resource persons, and the general management of the programmes.

The initial reports of the workshops for the promoted staff have been very positive; however, a summative evaluation of outcomes will not be available for at least one year. Reports from a few (less than 10) of the leadership teams regarding the outcomes of their follow-up school-based workshops have begun to trickle into the Inservice Unit in the Ministry of Education Teacher Education Department. This information indicates that the topics dealt with in the leadership team workshops are being used as the basis for the school-based workshops. It also is regarded as a positive note that the chief presenters at school-based workshops are the members of the school leadership team. This suggests a degree of confidence on the part of the head, deputy and senior teacher teams to follow through with a fairly complex assignment.

3. Teacher Advisors: A New Cadre of Helping Teachers.

Botswana's experience with introducing innovations into schools has demonstrated rather conclusively that those who train teachers, whether preservice or inservice, must be able to competently demonstrate that which they are passing on to others - that simply telling or directing teachers to incorporate new practices without sufficient training and support is a change effort usually doomed to failure.

In order to address this problem, the Ministry of Education is creating a cadre of carefully selected primary school "master teachers" who, in collaboration with education officers and the headteachers, can work directly and effectively with individuals or small groups of teachers in schools and classrooms to both introduce and support the major reform efforts of the Ministry. The immediate priorities for the teacher advisors is to assist with the Breakthrough to Setswana programme and the introduction of the project method of teaching. It is expected that the teacher advisors, now numbering 22 but scheduled to increase considerably, will also form an important national resource as inservice providers in the developing education centre network and the teacher training institutions.

4. Mobile Inservice Education Units.

A major concern of the Botswana Government has been to eliminate differences in quality of education between the rural and urban schools. One of the strategies being employed in this on-going effort is to provide inservice education directly to schools in remote areas through the use of mobile inservice units. Three such units (self-contained with kitchen and toilet facilities, video and copying equipment) are presently in use.

The initial goal for the use of the mobile units was to provide standard one teachers with intensive instruction in their own schools in the Breakthrough to Setswana method of teaching literacy skills to year-one students. Because the mobile units allow the inservice providers to remain at the schools over a period of several days, this inservice strategy has been evaluated as quite successful in achieving its purpose.

The longer range use for the mobile units is to send teams of trainers (teacher advisors) to the remote schools who will be able to carry out inservice education programmes for all members of the school staff. One focus of this work will be upon the integration of subject matter to implement the project method of teaching in a more child-centred environment.

5. The Botswana Teaching Competency Instruments

The Botswana Teaching Competency Instruments were developed for the direct but simple purpose of helping to improve teaching so that children in school will learn more and better. The instruments identify two groups of competencies related to classroom procedures and interpersonal relationships which it is believed every teacher should possess. Before the Botswana Teaching Competency Instruments were formally adopted by the Ministry of Education for general application in the schools, the skills represented in the instruments were tested by groups of headteachers, teachers, education officers and Ministry officials. Because of the widespread participation in development, the competencies expressed in the Instruments can be said to represent Botswana's working definition of "good teaching".

The Botswana Teaching Competency Instruments are intended primarily as classroom supervisory tools for headteachers, education officers and teacher advisors, but with an important difference. Rather than the usual "inspection" of a teacher's performance, the emphasis is upon building a collaborative, trusting relationship between the teacher and supervisor. Several steps have been taken to facilitate this process. A video depicting "old" and "new" supervision approaches ("Supervision: Yesterday and Today") has been developed locally to assist in training sessions for supervisors. Secondly, teachers are thoroughly versed in the purpose and methods of the competency instruments before they are used in any school and, finally, the Ministry of Education repeatedly stresses to both supervisors and teachers that the instruments are not to be used for administrative decision making or disciplinary purposes.

In order to introduce the Botswana Teaching Competency Instruments nationally, both awareness and intensive training workshops were conducted. The workshops frequently involved participants in practice observations in classrooms to develop skills in "seeing" the significant events occurring there, followed by discussions of what had been observed and how the teacher - no matter how effective her performance was - could become an even better teacher. A video explaining the instruments was also locally produced, has been an important resource in presenting both the philosophy and the procedures of implementation. The instruments and the related materials have also formed a very useful resource for the various preservice teacher education programs.

6. Field Education Officers for the Junior Secondary Schools

Junior secondary field education officers, like primary teacher advisors, are a new type of supervisor in the Botswana schools. Rather than being involved in the traditional inspecting of schools, these officers are subject matter specialists who have had special training in using a "coaching" model to deliver inservice education to junior secondary teachers. Their primary duties include:

a. Establishing supportive and cooperative working relationships with teachers and heads of departments.

b. Identifying areas where teachers need and want inservice training to improve their knowledge and skill.

c. Working with individual staff members to develop an inservice plan of action.

d. Cooperatively teaching or modelling improved instructional practices.

e. Assisting staff in evaluating the effectiveness of instruction by examining student achievement.

f. Developing and conducting workshops for school teachers and heads of departments.

Starting in 1987 with a small pilot project, there are now 34 field education officers and this number is projected to reach 100 by 1993.

Following the concept of decentralization, six inservice field offices have been established. With the rapid growth of this cadre, housing and office space are major logistical problems. There are also important questions pending regarding the relationships of the field education officer cadre to the new Department of Teacher Education and the Department of Secondary Education.

7. Inservice Education for Leadership Personnel in the Junior Secondary Schools.

The opening of 125 new Junior Secondary Schools in a period of a few short years has placed tremendous strain on the management capability of the educational system. Without a pool of trained and experienced leaders to draw from, the Ministry of Education has undertaken a major programme of inservice education for the leadership personnel in the junior secondary school, with a particular focus on headmasters. Deputy heads, senior teachers and bursars have also had some training. The current cadre of junior secondary school headmasters is fairly evenly divided between those having a Bachelors degree and those with a lesser qualification. Almost none has had any prior formal training in educational administration prior to appointment to the headship post.

The initial inservice objectives have centred on providing the very basic "survival" information and skills needed to open new schools and to manage them. In order to accomplish this, the Department of Secondary Education has mounted workshops of one to three weeks duration for newly appointed headmasters prior to the opening of a new school.

Regulations and guidelines developed specifically for the new junior secondary school system are greatly needed. A step has been taken toward addressing this problem with the development of a draft "Management Regulations for Community Junior Secondary Schools;" however, approval is yet needed for their implementation. Other manuals of a similar nature, as well as job descriptions for newly created posts, are also needed to provide more guidance to school administrators.

There will be some tapering off in the rate at which new junior secondary schools are put into service in the years ahead. That situation will permit the Ministry of Education to take a long-term look at the management needs of these schools. This should include not only the inservice education needs of the junior secondary school leadership personnel but also the acquisition of higher qualifications through the study of educational administration at the University.

Over the past few years a positive change in the attitudes of the junior secondary school headmasters has been reported. No longer do they seem to feel that being a headmaster of a junior secondary school is inferior to that of any other school. It is important that the long range training of this leadership cadre be concerned with the development of educational leaders as well as efficient school managers.

B. CURRICULUM AND INSTRUCTIONAL DEVELOPMENT REFORMS

In its study of the Botswana educational system, the National Commission on Education gave much attention to the issues of what is taught in the schools and to the teaching strategies which teachers employ. In keeping with the Commission's recommendations, the Department of Curriculum Development and Evaluation was established to provide leadership and coordination in the development, implementation and evaluation of the total instructional programme with priority attention to be given to the basic education (nine year) programme. Current curriculum reform efforts in Botswana have concentrated on the following:

> Improvement of the quality of education, giving particular emphasis, initially, to the primary level curriculum.
>
> Direction and coordination of substantial revisions in the junior secondary curriculum.
>
> Planning for the adequate provision of appropriate instructional materials that are specifically prepared to address the Botswana context.
>
> Strengthening the support service for the development and production of appropriate teaching/learning aids and educational broadcast programmes to supplement curriculum development strategies.

Following the establishment of the new Department, curriculum revision efforts were initially directed at the primary school level. These efforts resulted in the implementation of revised primary subject-area syllabuses in 1980, accompanied by certain instructional materials. A massive inservice programme for teachers was undertaken to install the new curriculum into the schools. Extensive follow-up work in schools was carried out both to assist teachers and to evaluate the curriculum changes.

Now, a decade after the revision of the primary school curriculum, the Curriculum Development Unit is moving toward a major further revision of the primary school curriculum to integrate it more fully with the concepts of nine years of basic education for all. This second phase of curriculum development work is scheduled to begin early in 1992.

1. The Aims of the Nine-Year Basic Education Programme

In order to provide a greater sense of direction to the curriculum development process and to the introduction of more appropriate instructional strategies, the Ministry of Education has set forth its aims for basic education in terms of student behaviors upon completion of the nine-year programme. At the end of nine years, students should:

Botswana Language and Culture: Show knowledge and understanding of Tswana culture, literature, arts, crafts and traditions.

Botswana Political, Economic and Social Life: Realize the effect of Botswana's location in the African continent on political, economic and social life in Botswana.

Botswana Climate and Ecology: Appreciate climatic and ecological conditions prevalent in Botswana.

English Language: Understand English and use it appropriately, both as a medium of learning at school and as a vehicle of communication beyond school.

Home and Financial Management: Apply knowledge and imagination to identify problems in household management and everyday commercial transactions, and have the mastery of basic scientific and mathematical concepts to resolve them. Know how to run a home and care for a family.

Self-sufficiency and Rural Development: Acquire skills in food production and industrial arts for self-reliance, self-sufficiency and rural development.

Observation and Reasoning: Be able to observe and record accurately and draw reasoned conclusions.

Basic Skills for Later Studies and Out-of-School Occupations: Effectively use commonly needed tools and instruments in activities connected with later studies and out-of-school occupations.

Self-Assessment: Be able to assess their own achievements and capabilities in pursuit of appropriate employment and/or further education.

Moral Development: Have developed a sound moral code of behavior compatible with the ethics and traditions in Botswana.

Adaptability to Change: Be able to adapt to social, economic and technical change by adjusting acquired knowledge to new situations and by taking appropriate action.

2. The Content of the Basic Curriculum

A major consideration guiding current curriculum development efforts has been the realization that the great majority of Botswana children would for the foreseeable future terminate their formal education at the end of year nine. This situation has resulted in the need to incorporate practical skills, though not vocational education, per se, into the curriculum to better prepare students for alternative forms of training after completing the basic education cycle.

The primary school curriculum comprises a core of six subjects:

English
Integrated science
Mathematics
Setswana
Social studies
Religious education

Agriculture and home economics have been introduced to provide a practical skills orientation to the world of work. Arts and crafts, physical education and music are offered as informal components of the primary school curriculum. The junior secondary school curriculum (years eight and nine) is also built around a core of six subjects:

Agriculture
English
Integrated science
Mathematics
Setswana
Social studies

In addition, home economics, technical studies, art and religious education are offered as options in the junior secondary curriculum.

3. Production of Instructional Materials Support

During the past five years, with assistance through the Junior Secondary Education Improvement Project, curriculum development at the junior secondary level has focused on the subject areas of English, agriculture, design and technology and art. Science, mathematics, Setswana and social studies are targeted for curriculum development work in the near future.

In addition to the curriculum revision efforts identified above, instructional support materials are being developed by national subject panels and curriculum development specialists under the direction of the Curriculum Development and Evaluation Department.

The curriculum development process includes the field testing and evaluation of draft materials and orientation workshops for teachers. While the Ministry of Education has the reprographic capacity for the production of draft materials, instructional materials for general distribution to schools are reproduced by the Government Printing Department.

The development and production of textbooks is carried out in cooperation with publishing houses. The Ministry of Education, however, sets the specifications for the textbook materials including content depth and coverage, sequencing of topics and pupil assessment strategies. Depending upon the circumstances under which textbook projects have been conceived and implemented, copyright agreements may take one of three forms: sole copyright of the Ministry of Education; joint copyright between the Ministry and publisher; or sole copyright of the publisher or individual authors.

4. Examinations and Assessments

It has long been recognized that the curriculum revision programmes would have to be accompanied by major changes in the examination and assessment of student achievement if the aims of the nine-year programme are to be effectively addressed. There are two examinations in the basic education programme - the Primary School Leaving Examination and the Junior Certificate Examination which are used primarily for selecting students for higher levels of education. Continuous assessment marks for students do not enter into the selection decisions. There is also concern that the present system does not adequately address the assessment of skill attainment and attitudes. Promotion from standard to standard in the primary years is essentially automatic, and remedial teaching is almost non-existent.

A UNESCO consultant recommended in the mid 1980s that a comprehensive, continuous assessment programme with remedial teaching replace the current Standard 4 diagnostic test and the Primary School Leaving Examination. The recommendation was accepted in principle by the Ministry, and a pilot programme was initiated with donor support to develop a scheme for continuous assessment which would reflect a child-centred philosophy rather than simply classifying children. While the training sessions for staff from the pilot schools were regarded as successful, this effort at reform has been essentially shelved until such time as more trained resource personnel are available to provide follow-up services and support to schools attempting to introduce continuous assessment on a systematic basis.

A fresh commitment to the modification of the examination and assessment system is being made by the Ministry of Education for the next planning period (1991-1996). Operations now underway at the Curriculum Development Unit will introduce criterion-referenced testing and reporting methods for both the Primary School Leaving Examination and the Junior Certificate Examination. The staff at the Curriculum Development Unit and the Research and Testing Centre are together developing refined text blueprints and test plans which represent each subject's curriculum objectives from which test question specifications will be drawn. These refined test and item specifications in each subject will reflect important curriculum objectives tested by the Primary School Leaving Examination and the Junior Certificate Examination to certify achievement in that subject.

Since different subjects are now at different stages in the curriculum development process, criterion-referenced testing and reporting is starting first for the Setswana Primary School Leaving Examination and for agriculture, English, design and technology and art for the Junior Certificate Examination. The Junior Certificate subjects will also incorporate continuous assessment into the marking and the selection of students. Planning is now being undertaken to provide inservice education to the subject examination committees and to develop the procedures for reporting test results in ways that will best meet the needs of such various users as the Ministry of Education, headmasters, teachers and students.

5. Toward a More Child-Centred Primary School

Over the past decade, the Ministry has initiated a number of reforms which, when viewed collectively, lead to a vision of the school as a child-centred rather than teacher-centred place of learning. While the introduction of these initiatives has frequently gone forward with minimal coordination among them, there is an emerging consensus that effective teachers are those who are able to integrate major concepts from these reforms into their daily instructional patterns. As a result, current workshops for primary teachers tend to deal with a number of these initiatives collectively, and are frequently referred to as "good teaching" workshops. A brief description of these major reform efforts is given below.

a. Breakthrough to Setswana. The aim of Breakthrough is to teach children to read fluently and to write with confidence during the first year of primary school. This programme, which was developed in England and adapted for Southern Africa at Rhodes University, has now been introduced into nearly 1200 standard one classrooms in Botswana. The Breakthrough programme has been very successful in classrooms where the teachers were carefully trained and their work was closely monitored. However, the rapid expansion of this programme without adequate follow-up has lead to some deterioration in results. In part, because of this, an expanded cadre of teacher advisors is being established.

The Breakthrough methodology requires that teachers work with children in ways that are radically different from usual practices. The process focuses on the individual rather than the class; it encourages children to help one another as well as to work out problems by themselves; children are allowed to talk freely with others about their work; integrating experiences are provided through language and art; and meaningful repetition is emphasized rather than rote memorization.

The introduction of Breakthrough into standard one forces major modifications in the following years of schooling if the values of Breakthrough are to be retained and built upon. This has led the Ministry of Education to introduce the "project method" of teaching throughout the primary system.

b. The Project Method. Much teaching in Botswana can be characterized as teacher centred, i.e., lecturing by the teacher and rote memorization by the children. In contrast, the project approach is a child-centred methodology which starts from children's interests and is carried on both inside and outside the classroom for a period of time which may last from a few days to weeks. School time is divided between project work and teaching the basic skills. The children are involved in planning learning activities, raising questions to be answered, finding information and reporting to their fellow students on what they have learned through written reports, art work, models, plays and the like.

Quite obviously, the introduction of the project method into the 8000 plus primary classrooms in Botswana is both a complex and long-term undertaking. The groundwork for its implementation has included the following activities: awareness presentations of the project approach at workshops for the education officers, headteachers, teachers, teacher training college lecturers and University personnel; in-depth training for selected teachers and administrators followed by the introduction of the project method into 72 demonstration schools; workshops for tutors in primary teacher training colleges dealing with the integration of this teaching strategy into the teacher preparation programme; and the commercial publication of a locally developed manual for teachers which provides the rationale and detailed steps for implementing the project method and assessing student achievement.

6. Guidance and Counselling

Although many of the changes in Botswana society are viewed generally in a positive light, there are disturbing negative elements that adversely affect the Nation's youth. These include the widespread unemployment problem, the breakdown of the extended family system, unwanted pregnancies and youth alcohol abuse. It was in recognition of these and related problems that the National Policy on Education addressed the need for guidance and counselling in the schools.

There has been career guidance in secondary schools since 1963; however, it was only with the establishment of a Guidance and Counselling Unit in the Department of Curriculum Development and Evaluation in 1987 that the first substantive steps were taken toward the establishment of a comprehensive programme for the schools. While the nature of guidance and counselling programme is still being shaped, there is consensus within the Ministry of Education that the long-term goal is to provide guidance services at both primary and secondary levels, and that those services should address the personal, social, academic and vocational concerns of students in a manner that is cognizant of the needs of the nation.

Currently, many schools in Botswana have a teacher-counsellor assigned. This person, almost always untrained in counselling, may be either a volunteer or, more likely, be chosen by the headmaster. The teacher-counsellor is first a subject-matter teacher who then "fits counselling in" as time permits. Very few teacher-counsellors have released time for their work, although the Ministry of Education has approved this concept in principle. During its short existence, the Guidance and Counselling Unit has attempted to provide inservice education as widely as possible to teachers and education officers, and it has also prepared and distributed copies of a "Resource Book for Guidance Practitioners in the Schools of Botswana."

A recent consultancy report (August 1990) has addressed the issue of a long-term, comprehensive guidance and counselling development programme. The primary elements of this plan deal with defining the roles and functions of school counselors; identifying the skills needed by counsellors; implementing a systematic plan for the inservice education of teacher-counsellors throughout the country; and the development of a career information system.

The University of Botswana has recognized the need for trained counsellors in a variety of fields and is planning for the establishment of a counsellor education programme during the next (1991-1996) National Development Plan period. Until such time as this programme is operational, the formal training of guidance and counselling personnel will continue to be abroad.

7. Special Education.

The first special education initiatives in Botswana came through non-governmental agencies in the late 1970s. In 1984, through donor assistance, special education was established as a unit in the Department of Primary Education in the Ministry of Education.

There are presently two types of special education provisions in Botswana. The first consists of special units attached to regular primary or secondary schools (12), while the second type is that of special schools (2) established and run by voluntary organizations. Approximately 300 children are being served through these arrangements. The deaf and blind make up 19 and 20 percent respectively of this population, while mentally retarded and handicapped constitute 55 percent. A 1983 consultancy estimated that there were 43,000 children aged 5-15 with severe disabilities.

A new diagnostic centre for special education purposes has been constructed adjacent to a primary teacher training college; however, it is not yet staffed and operational. There are no specialized training programmes in Botswana for special eduction teachers; however, the primary teacher training colleges attempt to incorporate aspects of special education into their preparation programmes and the University of Botswana also offers courses in this field.

The Ministry of Education is currently developing a comprehensive statement of policy to guide special education development during NDP 7. Key elements of the policy will deal with the following: the relationships of the Ministry of Education to other ministries and voluntary organizations in special education development; the teaching of handicapped children, wherever possible, in regular classes or in special classes in regular schools; including elements of special education in the preparation of all teachers; and establishing an assessment and development service which will consist of a broadly-based team of professionals.

C. EFFORTS TO IMPROVE COMMUNICATION AND CONSULTATION

The inclusion of a statement in the National Policy on Education that Government intends to consult with those affected by educational policy proposals and that two-way communication channels will be established on the objectives of the new educational development strategy is a reflection of the Government's commitment to building a strong democratic society. The dramatic change in the educational system in recent years has challenged education officials in their goal to keep the people informed about programme proposals and to hear the people's responses. This paper takes notes of four initiatives, among others, by the Government to implement its policy on consultation and communication.

1. A Partnership with Local Communities in the Management of Junior Secondary Schools

Junior secondary schools were initially community owned, supported and managed. In view of the great problems which communities were having in providing acceptable quality educational programmes, the Government decided to subsidize them, progressively taking over more of the recurrent budget. However, Government has also attempted to maintain the close link between the school and the people they serve by establishing a Board of Governors for each junior secondary school.

Revised regulations for Boards of Governors are currently under consideration, but have not as yet been adopted. As a result, practices vary to some extent among Boards; however, the following describes the current role and duties of the Boards generally:

a. Five to eight members elected from the school catchment area.

b. Raises funds for 25 to 50 percent of the cost of staff housing, depending upon rural or urban location.

c. Assists with construction costs of additional buildings.

d. Employs local staff.

e. Assists in the management of the schools.

Plans have been developed to carry out an inservice education training programme for Boards as soon as the new regulations receive Government approval. Even though community experience with Boards of Governors is still quite limited, and there are a number of problems, some boards are functioning quite effectively and making important contributions to the life of the school. Such evidence bears out the original view of the Boards as important communication links between communities and schools and as sources of support, both financial and moral.

2. A Partnership between Primary Schools and Parents: the Parent-Teacher Association

For many years, the Ministry of Education has encouraged primary schools to establish active associations of parents and teachers. Although there is considerable individuality among Parent-Teacher Associations in terms of their activities, most seek to:

a. Encourage parent support of educational activities undertaken by their children.

b. Promote parental and community involvement in the education process.

c. Provide a forum for interaction with the community concerning such problems as student discipline or poor school performance.

d. Raise funds for worthy school projects.

3. Community Consultation on Basic Education

In 1988 and 1989, the Department of Curriculum Development and Evaluation, with donor assistance, sponsored three major conferences in geographically different venues to provide forums for discussion between Ministry of Education officials and local communities about critical educational problems. The conferences were organized around issues related to the curriculum, communication and education and work. Locally produced videos, which presented through interviews many critical issues and concerns, were used to introduce the topics.

Each conference, which lasted about three days, involved 30-40 participants plus officials from the Ministry of Education and facilitators. The local participants typically included parents, local community leaders, a member of Parliament, and school personnel. Detailed reports of the conferences were prepared, including transcripts of the plenary sessions and summaries of group sessions. The proceedings were published and distributed.

Reactions by participants to the consultative conferences were generally quite positive. However, their value may perhaps be better reflected in the analysis of the reports of the conferences and interviews of some participants carried out by Meyer (July 1990). His analysis reveals, among other things, the following: a number of common assumptions held by participants about the modern economy and the occupational system; the problems of information and communication linkages between the Ministry of Education and society generally; and problems arising from faith in building a new society through educational policy and development.

Commonly held assumptions, according to Meyer, included the following ones: that "society is to be organized around modern occupations" and that "any preparation needed for any aspect of life ... must be provided in the educational system." Regarding the organization of education, the analyst found that the "participants expect the educational system to be a standardized national one and to be effectively controlled by the national Ministry." However, he also observed that "the assumption of central direction is not entirely a one-way image. Botswana democracy implies, not local sovereignty, but the principle of consultation".

Meyer's analysis of information and communication problems led to a number of specific recommendations for the Ministry of Education and the Curriculum Development and Evaluation Department concerning both the mechanics of communication and the content to be addressed. The analyst also discussed the participants' overwhelming, and perhaps unrealistic, faith in education to solve a myriad of social problems, including those of unemployment, teenage pregnancy and youthful crime.. Recommendations concerning these issues, as well as longer term policy choices, were put forward by Meyer.

Meyer's analysis of the consultative conferences proceedings has provided a useful perspective for further discussions of the messages deriving from these meetings and the conclusions which should be drawn. The nature of the recommendations put forward point to the need for further consultation by the Ministry of Education to consider their appropriateness to the issues addressed.

4. Professional Educationalists' Seminars

Upon the initiation of the Permanent Secretary in the Ministry of Education, week-long seminars were held in 1987 and 1988 for higher ranking Ministry officials and representatives of the University of Botswana. The venue for both conferences were at a college of education located about 50 kilometers from the capital.

The seminars were in response to the perceived need for better communication among departments and individuals in the Ministry regarding the varied educational programmes, plans and activities which had been undertaken in recent years. The need for such a seminar was also heightened by the relatively large increase in personnel in the Ministry headquarters, many of whom had a limited personal knowledge of the work of units outside their own.

The first Professional Educationalists' Seminar featured presentations by heads of units or departments to simply describe their operations. Large group discussions followed the presentations and small group discussions were interspersed throughout the week. The papers which were presented and summaries of discussions were published and distributed by the Ministry of Education. During the course of the seminar, it became increasingly apparent that the programme was meeting an important need for many participants both to receive and share information about work in the Ministry.

The second seminar held 16 months later had the theme "Education in the Future - Towards the 21st Century". Presentations were linked to the following broad topics: reorganization, coordination and development; infrastructure, access to education; and beyond NDP 6 (the current development plan). Small group and plenary sessions were conducted to the formulate recommendations for the next development plan (NDP 7 1991-1996). Unfortunately, the proceedings of the second Seminar were not published.

A Concluding Comment

A careful observer of the educational planning and decision process in Botswana is likely to be impressed with the high degree of consultation which occurs throughout the education community. Committees, both permanent and ad hoc, abound and are active. Sometimes the search for consensus is long and participants do, on occasions, become impatient. But this process of participation - Therisanyo as it is called in Setswana - is inherent in the Batswana way of life, and it is regarded as the basis of democracy.

D. ORGANIZATIONAL AND STRUCTURAL DEVELOPMENT OF THE EDUCATIONAL SYSTEM

The rapid expansion of educational opportunity in Botswana has demanded, and continues to require, many changes in the way the educational system is organized and managed. This section of the paper describes briefly several of the major organizational development which have or are occurring in the wake of the National Commission on Education report of 1977. An overview of the total organization of the Ministry of Education and an organizational chart are included in Appendix A.

1. Restructuring from a 7-3-2 to 6-3-3 Plan.

The National Commission on Education recommended for a variety of reasons, including financial, educational, and philosophical ones, that the then 7-3-2 pattern of education (7 years primary, 3 years junior secondary and 2 years senior secondary) be restructured to a 6-3-3 pattern. Several steps have been taken by the Government along the road to implementing this change, including the following: (a) adopting a policy of nine years of education for all, and (b) reducing the junior secondary school programme from three to two years. (Significantly, the latter has been accomplished with no loss in student achievement as measured by the Junior Certificate Examination.) A firm timetable has yet to be established for transferring primary year 7 to the junior secondary school level. To date, 125 junior secondary schools have been constructed, almost all of which are day schools closely linked to the primary schools from which they are drawn.

The changed structure has given the junior secondary schools a distinct identity which they did not possess earlier as units in junior-senior high schools or as self help schools. This identity includes an attractive, specially designed school facility, a new curriculum with a more practical orientation, and Batswana teachers who have been specially prepared to work with students of this age.

2. The Unified Teaching Service.

The Ministry of Education established the Unified Teaching Service in 1976 to deal specifically with the recruitment and management of teachers, including administration of salaries. The increasing magnitude of the Unified Teaching Services responsibilities is reflected in the following figures:

Educational Unit	1976	1990
Primary schools	250	565
Community junior secondary schools	0	125
Senior secondary schools	19	23
Primary teacher training colleges	3	4
Colleges of education (Jr. Sec. Teachers)	0	2
Teachers	3,000	13,000

As a result of the construction of the fourth primary teacher training college, Botswana is steadily reducing the percentage of untrained primary teachers (now less than 15 percent) with the projection that they will be eliminated in a few years. A special programme is being considered to provide the present untrained teachers with the necessary academic skills to gain admission to the primary teacher training colleges, and thus become fully qualified. Currently there are only 55 expatriates teaching in the primary schools.

The very rapid expansion of the junior secondary system has been accompanied by a number of "growing pains" which the Government is addressing. Included among these problems is an acute shortage of qualified Batswana teachers, insufficient housing facilities and a very limited number of experienced supervisory personnel. (The steps being taken to address the latter problem were discussed earlier in the paper.)

In order to cope with the shortage of locally trained staff for the secondary sector, external recruitment, including the use of volunteer agencies, has been necessary. Today, approximately 36 percent of the secondary school teachers are expatriates. Projections indicate, however, that with the output of the second College of Education coming into the system in 1993, the need for expatriates and untrained teachers will have been met by 1999 and that all children will have access to a full nine years of basic education. It should be noted, however, that the Government is currently considering ways in which this goal can be met at an earlier date.

Perhaps not unexpectedly, the rapid rate of system expansion has also been accompanied by problems related to teacher satisfaction. A recent job evaluation exercise throughout Government service has led to strong expressions of dissatisfaction by some segments of the teaching profession, including a strike of nearly one month by primary teachers in 1989. The recommendations of a task force to deal with that particular issue are presently in the process of being implemented, however, other problems of a career-ladder nature are still pending.

The main task of dealing with a burgeoning mountain of teacher records in the Unified Teaching Service is being addressed through computerization. Over the past three years, basic information about most teachers has been entered into the computer system.

3. The Department of Curriculum Development and Evaluation

The Curriculum Development and Evaluation Department was established in 1978 as a direct outgrowth of the National Commission on Education study. The department incorporates the following units: Curriculum Development, Research and Testing, Examinations, Teaching Aids Production and Schools Broadcasting. Certain aspects of the work of the Curriculum Development Unit and the Examinations Unit are discussed elsewhere in the paper; however, it is appropriate to note here the strengthening of the unit since its establishment. Growing from one professional officer in 1978 to six in 1985, it now has over 20 curriculum development officers including four advisors provided through donor funds. The rapid addition of curriculum specialists in recent years has been in direct response to the Government's commitment to improve the educational offerings in the basic education programme.

4. The Department of Teacher Education.

For many years the function of teacher training in the Ministry of Education was combined with that of the supervision of the primary schools. In 1989, the Department of Primary and Teacher Training was separated into the Department of Primary Education and the Department of Teacher Education, each with its own Chief Education Officer in charge. The Department of Primary Education has retained the responsibility for the direct supervision of the nations 565 primary schools through four Regional Education Officers and 36 education officers.

The new Department of Teacher Education provides leadership for both preservice and inservice education as well as the Office of Training. The four primary teacher training colleges and the two colleges of education come under the direct supervision of the Department of Teacher Education, while the relationships with the teacher education programmes at the University of Botswana, the Polytechnic and the Botswana Agricultural College are characterized by liaison and coordination. The maintenance of standards for the various preservice teacher education programmes is addressed through special linkages with the University which includes the external examination of students' test results.

While the intent is to bring all inservice education under the supervisory umbrella of the Department of Teacher Education, as is the case with preservice education, currently, the Department's direct inservice responsibilities are limited to the primary sector and the management of the Education Centre Network. Organizationally it is regarded as particularly important for all the inservice education efforts related to the basic education programme to be jointly planned and carefully coordinated in order to provide for the greatest possible articulation from standard one through year nine.

The National Council for Teacher Education is an advisory body of approximately 30 representatives from all teacher-preparing institutions in Botswana and Ministry of Education officials. The council has been fairly active in recent years in considering a number of teacher education issues and making recommendations about them. A review of the functioning of the Council is currently underway in an effort to improve upon its usefulness as an advisory body.

a. The Preparation of Junior Secondary Teachers. Two colleges have been established in recent years to prepare teachers for the new secondary school system (Molepolole - 1986 and Tonota - 1990). Each has the capacity to prepare 200 teachers annually. The three-year Diploma programme offered by the two colleges enrolls mostly secondary school graduates (Cambridge O'levels). The graduates are qualified to teach in two separate subject areas. The curriculum for the colleges is in keeping with the Government's policy guidelines concerning the desired characteristics of the basic nine-year educational programme. There is some specialization between the two colleges in the practical subjects which are offered.

b. The Preparation of Primary School Teachers
Four primary teacher training colleges are responsible for the preparation of all primary teachers. The four colleges, similar in size, have an annual output of approximately 660 teachers. The primary colleges provide a two-year certificate programme which enrolls predominantly students who have either attempted or achieved the junior certificate. However, a significant number of experienced but untrained teachers who have even less formal training are admitted annually through an examination and interview procedure.
The Ministry of Education, in response to widespread

dissatisfaction with the present programme for preparing primary teachers, is proposing that the two-year certificate be phased out and that a three-year Diploma programme enrolling secondary school graduates take its place. If this proposal is enacted, teachers throughout the nine-year basic education programme would eventually have the same qualification. The proposal is regarded as having a major impact upon the quality of primary education in the country in the long-term, as much more highly qualified teachers enter the system.

c. The Education Centre Network

The Education Centre Network represents a major commitment by the Government to bring inservice education opportunities within easy reach of all teachers in Botswana. The network began in the 1970s with five small centres located in major villages. Because of the demonstrated value of these early operations, it was decided to extend the network nationally and to provide much more extensive facilities.

With donor assistance, nine new Education Centres, strategically located across the country, are being constructed. Each Centre provides hostel accommodations for 35, two classrooms, a library and a materials development room. Office space is provided for primary, secondary and non-formal education officers. It is planned that the older Education Centres will be upgraded to the level of the new facilities during the seventh National Development Plan period (1991-1996).

Some Centres are beginning to take on unique roles in addition to more generalized responsibilities. Examples of this are environmental education, Breakthrough/project method, media development and computer education. Programming for the centres is done locally with the intent that each one will be as responsive as possible to local and regional needs while, at the same time, attending to national inservice education goals.

The development of the Education Centre Network is viewed by Ministry of Education officials as a step toward greater decentralization of the management of education. This concept is supported by each Centre's having its own local advisory committee, including community representation. There is much evidence of a high sense of local ownership of the Centres, resulting in community as well as educational utilization.

E. EDUCATIONAL RESEARCH AND EVALUATION

Research and evaluations findings about the educational system in Botswana have played a significant role both in the formulation of policies for expansion and restructuring, and in the development of programmes to improve the quality of the educational experience for children and youth. The comprehensive evaluation of the system in 1977 by the National Commission on Education not only provided the basis for the Government's National Policy on education, but it also demonstrated a level of commitment to the use of educational research and evaluation to find appropriate solutions to educational problems.

1. Developing Capacity to Conduct Research

Efforts to develop the country's own capacity to conduct educational research and evaluation are proceeding on a number of fronts. The Ministry of Education, through its Planning Unit, is developing a computerized data base which will generate timely information for the managerial level of the Ministry and which, on a long-term basis, will support system planning and policy analysis.

The necessity for training Batswana in the science of research and evaluation has been recognized in a number of ways including: the development of an MEd degree programme at the University which incorporates both research courses and research projects; sending educators abroad for advanced degrees; and providing financial support from both Government and donor funds for worthy research projects. Other developments are contributing to the climate which seems increasingly to value educational research. The Botswana Educational Research Association has been active in bringing professionals in the education community together, both to provide assistance and training to developing researchers and to provide, as well, a forum for sharing research findings. Research seminars are offered frequently by the Faculty of Education, which also publishes an annual profile of research and publications.

2. Educational Research Activity

The reader is referred to the appendix for a sampling of research and evaluation activities undertaken in recent years. Generally, the research may be classified as falling into the following areas: system research, departmental research (Curriculum Development and Evaluation), programmatic research and substantive research.

A number of research activities in the latter category during the past few years have focused on the classroom when expansion and restructuring at the junior secondary level has been most notable. Ethnographic analyses, questionnaires and extensive field observations have provided a rich information base for the consideration of education context and status in light of the dramatic system growth and instructional, structural and substantive changes. Consultative seminars within the Ministry have supplemented the dissemination of papers and the formal discussions of their implications for instructional policy and practice. Many of these findings will be published in book form in the near future and distributed widely throughout the education community. (Snyder, C.W. Jr. and Ramatsui, P.R. (Eds)(1990). Curriculum in the Classroom: Context of Change in Botswana's Junior Secondary School Instructional Programme. Gaborone, Botswana: Macmillan)

A Concluding Observation

Test results show that dramatic increase in school accessibility over the last ten years has been achieved without academic sacrifices. The large number of students in the system are doing as well now as their more select counterparts of the late 1970s. Unfortunately, there are still many children who do not attend school, or attend irregularly, and academic quality remains marginal at the lower and middle levels of instruction. Much of the research of recent years has addressed the problem of academic quality, both in terms of classroom instructional considerations and systemic infrastructural development. It is clear that there are many things that can be done to improve instruction, but it is also clear that there are many infrastructural problems that impede and impair improvement attempts.

The reader is referred to Appendix C for summary statements, "Descriptions and Inferences from the Classroom Research", which generally describe education in Botswana schools.

PART IV. RESOURCES AND EDUCATIONAL DEVELOPMENT

The economy of Botswana, fueled principally by the mineral industry (diamonds in particular) has had a relatively long period of sustained expansion which has permitted a rate of development throughout all sectors of Government that was virtually inconceivable at the time of independence. The performance of the economy during the present plan period has also been significantly better than was expected at the time when the plan was prepared. The forecast at that time projected a growth rate of 4.8 percent per annum, but the real growth has been at 9.3 percent per annum, nearly double the target figure. During the next plan period (NDP 7: 1991-1996), however, revenue growth rates are expected to flatten.

Total government expenditures, capital and recurrent, on education and training have risen from 16.9 percent in 1982-1983 to an estimated 18.3 percent in 1990-91. (This percentage also includes training in the Ministries of Agriculture, Local Government and Lands and Health.) Recurrent expenditures of the Ministry of Education as a percentage of Government recurrent expenditure have increased from 18.4 percent in 1983-84 to an authorized estimate of 19.8 percent in 1989-90 and an estimated 19.5 percent in 1990-91. It is suggested that about 50 percent of the increase in Government expenditures in the next plan period (1991-1996) would be attributable to the increased expansion of the educational system.

The unit costs for the various levels of education in 1988-1989 are set forth below:

Level	Cost Per Student (Pula)*
Primary	340
Junior secondary	1000
Senior secondary	1600
University	11000
Primary teacher training	2630
Secondary teacher training	4500

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*1 Pula = US$ .54

Because of the favorable economic climate, Botswana has been able to increase access to education rapidly at the same time that it was introducing the major improvements which are discussed in this paper. In addition, all school fees for both primary and secondary education have been dropped and most students in post-secondary institutions are fully supported by Government bursaries.

With the expected slowing of the economy in the years ahead, there is likely to be increased consideration given to various cost recovery measures. It is also anticipated during NDP 7 that efforts will be made toward involving the private sector to a greater extent in the area of vocational and technical training.

The profound changes in the educational sector have placed added stress on the system. While economists report that Government has done an excellent job in controlling the growth of the bureaucracy, the negative side is that some Ministry of Education departments have acquired large workloads with very few professional and support staff to carry out their responsibilities. This raises issues of institutional capacity, particularly in view of the goal to further decentralize management of the system. There are also occasions when foreign technical assistants do not have counterparts because the units are thinly staffed. As a result, on-the-job training is not possible and much of the Ministry's institutional memory is lost when expatriates depart.

Donor Assistance to Basic Education

Several external assistance agencies are providing support in various forms to Botswana's basic education system. These include the following:

1. British Overseas Development Administration: Support to both primary and junior secondary education through technical assistance in preservice and inservice teacher education, inservice teacher training workshops, books and training in the United Kingdom.

2. Denmark: Three mobile units for inservice education in remote areas.

3. Holland: Teachers through their volunteer service and inservice education for secondary science teachers.

4. Germany: Teachers and inservice education specialists.

5. Sweden: Educational broadcasting, teaching aids, production, educational research and special education.

6. United Nations: Volunteer teachers.

7. United States Agency for International Development: Primary Education Improvement Project and Junior Secondary Improvement Project. (Both provide for technical assistance and training. The Primary Education Improvement Project focuses on teacher education and the Junior Secondary Education Improvement Project addresses junior secondary curriculum development and research. A Basic Education Consolidation Project, to begin in 1992, will continue to focus on basic eduction curriculum development).

United States Peace Corps: Teachers for junior secondary schools and other technical assistance.

Funds have also been received from the African Development Bank (school construction), the World Bank (school construction and books) and the United Nations Capital Development Fund (school construction).

BEYOND BASIC EDUCATION: A CONCLUDING COMMENT

While a number of major policy decisions concerning basic education are in place and in the process of being implemented, as this paper has attempted to show, the Botswana commitment to rapid modernization is forcing many other issues high on the educational policy agenda. Among these is the escalating demand for a wide variety of technical, professional and managerial skills in an increasingly complex and diverse economy. The rapid expansion of the private sector and large scale public development projects have raised demands for expatriate labor very significantly. Preparing Batswana to take over the many jobs now requiring expatriates is a major challenge facing both the formal education system and the private sector as well.

Over the past decade the Ministry of Education has taken a number of steps toward addressing the economy's human resources needs. These include curriculum revision in the schools, the development of various types of skills, training programmes and the expansion of programmes at the University, the Polytechnic and the College of Agriculture to address a wider range of professional-level human resource needs. The Ministry is committed to the further rapid development of the vocational/technical sector of its educational system and will be giving it high priority in National Development Plan 7. Government policy also recognizes that the private sector has an important role to play in training the workforce and will be encouraged to do so.

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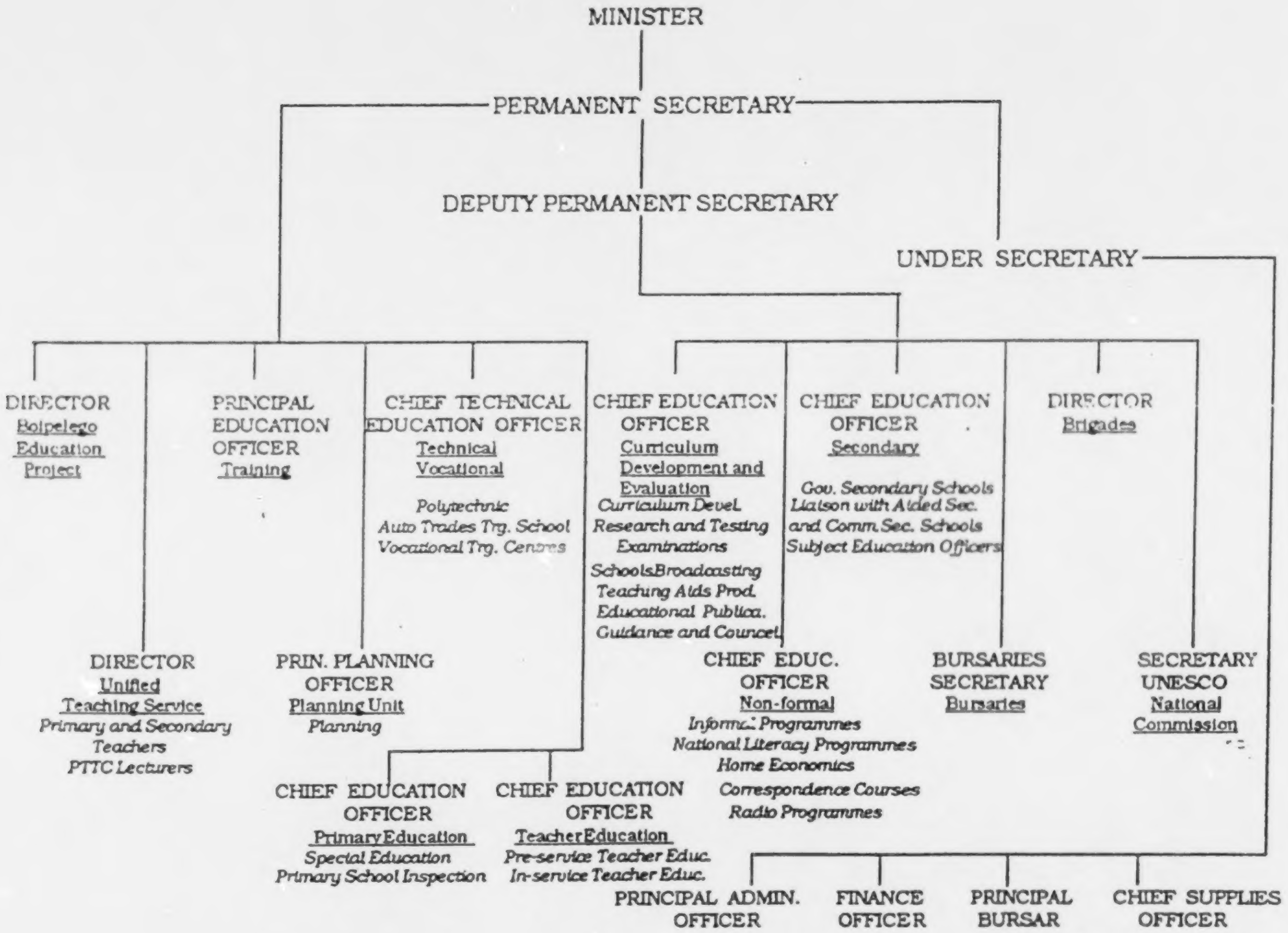
Ministry of Education
Organisational Chart


MINISTER
PERMANENT SECRETARY
DEPUTY PERMANENT SECRETARY
UNDER SECRETARY
DIRECTOR Boipelego Education Project
PRINCIPAL EDUCATION OFFICER Training
CHIEF TECHNICAL EDUCATION OFFICER Technical Vocational
Polytechnic
Auto Trades Trg. School
Vocational Trg. Centres
CHIEF EDUCATION OFFICER Curriculum Development and Evaluation
Curriculum Devel.
Research and Testing
Examinations
Schools Broadcasting
Teaching Aids Prod.
Educational Publica.
Guidance and Councel.
CHIEF EDUCATION OFFICER Secondary
Gov. Secondary Schools
Liaison with Aided Sec. and Comm. Sec. Schools
Subject Education Officers
DIRECTOR Brigades
DIRECTOR Unified Teaching Service
Primary and Secondary Teachers
PTTC Lecturers
PRIN. PLANNING OFFICER Planning Unit
Planning
CHIEF EDUC. OFFICER Non-formal
Informal Programmes
National Literacy Programmes
Home Economics
Correspondence Courses
Radio Programmes
BURSARIES SECRETARY Bursaries
SECRETARY UNESCO National Commission
CHIEF EDUCATION OFFICER Primary Education
Special Education
Primary School Inspection
CHIEF EDUCATION OFFICER Teacher Education
Pre-service Teacher Educ.
In-service Teacher Educ.
PRINCIPAL ADMIN. OFFICER
FINANCE OFFICER
PRINCIPAL BURSAR
CHIEF SUPPLIES OFFICER

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GOVERNMENT OF BOTSWANA
MINISTRY OF EDUCATION

An Overview of Organizational Responsibilities

Introduction

The overall responsibilities of the Ministry of Education include the provision of adequate educational opportunities to all Batswana for satisfying manpower needs for all sectors of the country's economy at all levels and to create a conducive environment for personal development.

To this end, the Ministry of Education has to develop, introduce and maintain a sound overall national education system through which the country's education objectives can be effectively attained.

The organisational chart delineates the Ministry's plan for providing a policy and planning framework, with the necessary professional support services, which can set objectives for the various departments, institutions, teachers and learners, but which also provides latitude for freedom to make choices over the disposal of time and resources.

Educational Management

The main responsibility for educational policy in Botswana rests with the Minister of Education under the President. The executive control of the Ministry of Education lies with the Permanent Secretary, assisted by the Deputy. Between them are divided all portfolios for the various departments within the Ministry.

The Under Secretary is responsible for administration. The staff under this portfolio includes finance, administrative, secretarial, stores, transport and clerical officers.

The work of the Ministry as a whole is kept under review by the Policy Advisory Committee, which is chaired by the Permanent Secretary. The membership of the Policy Advisory Committee is normally restricted to senior officials and heads of the following departments:

Unified Teaching Service

UTS is the recruiting and employing agency in the Ministry for teachers at primary, secondary and teacher training levels. The Department currently employs about 13,000 teachers/lecturers/instructors whose salaries form about 51 percent of the education budget.

Primary Education

The management of primary education in Botswana is the dual responsibility of the Ministry of Education and the Ministry of Local Government and Lands. The Ministry of Education, principally through the Department of Primary Education, is responsible for the overall professional development of primary education. This includes registration of schools, supervision and inspection, the implementation of curricula and administration of examinations, among other responsibilities.

The Ministry of Local Government and Lands is responsible for the development of the physical facilities for primary education.

There is an interministerial coordinating committee, the Joint Committee on Primary Education that ensures that the work of the two ministries in developing primary education is harmonised.

Secondary Education

As with the other levels of education, Botswana's long term objectives for secondary education are based on the Report of the National Commission on Education and the subsequent Government Paper of 1977 "National Policy for Education". The objectives for secondary education are:

i) to provide universal two-year junior secondary education for all in the shortest possible time.

ii) to seek to meet manpower requirements, particularly for Form 5 school leavers, with good qualifications in mathematics and sciences, and

iii) to provide universal access to junior secondary education.

Secondary education is provided throughout Botswana in some Government and Government-aided senior and junior community-based schools. This sector is managed from headquarters by a team of education officers under the direction and leadership of the Chief Education Officer.

The rapid expansion of secondary education has created the need to provide a more effective system to monitor standards through a network of regional education offices and education officers. A pilot Secondary Teacher Inservice Scheme was started in Francistown in English, Mathematics, Science and Technical Studies, using experienced teachers to visit schools to help and advise their less experienced colleagues.

Curriculum Development and Evaluation

The overall responsibility of coordinating and monitoring curriculum development syllabus review and revision on behalf of the Ministry of Education lies with the Department of Curriculum Development and Evaluation. The units within the Department include: Curriculum Development, Educational Broadcasting, Educational Publications, Examinations, Guidance and Counselling, Research and Testing, and Teaching Aids Production.

The main priority concerns of this Department have been directed at improving education at the primary level and formulating strategies to overcome problems associated with the automatic promotion policy. Currently the Department is engaged in the development, review and consolidation of the curriculum for the nine-year basic education programme.

Teacher Education

All preservice and inservice academic teacher education is under the managerial responsibility of the Department of Teacher Education. The preservice of primary teachers and junior secondary and secondary teachers takes place at four Primary Teacher Training Colleges, two Colleges of Education and the University of Botswana, respectively.

Inservice programmes are organised at various Education Centres under education officers directly supervised by the Inservice Unit in the Department of Teacher Education.

Ministry of Education is currently reviewing all teacher education programmes and curricula, and has given priority to strengthening the administration and supervision of teacher education in Botswana. Particular attention is being given to reviewing the preservice programme with respect to curricula, staffing, facilities, selection, and certification examinations.

Non-Formal Education

The Department was established in 1978, following a recommendation of the National Commission on Education. The establishment of this Department places non-formal education on an equal footing with other departments of the Ministry, and facilitates joint planning between the formal and non-formal sectors of education.

The Department's activities, whilst coordinated centrally from the Ministry of Education, take place at the district level. They include national literacy programmes, correspondence courses, media, editorial work and printing.

Vocational and Technical Education

Vocational and technical education is presently offered by the Ministry of Education in secondary schools, by the Brigades, at various Vocational Training Centres, at the Polytechnic, and at the Auto Trades Training School.

There exists under the Ministry of Education Bridec, which is the institution that offers professional advice, guidance and training to the Brigades. The latter are autonomous training institutions, mainly community-based, which were set up to offer vocational training via production to primary school leavers who failed to make the grade for secondary schooling.

Planning Unit

The Planning Unit is integrally part of the Ministry of Finance and Development Planning and is staffed by economists from that Ministry. The Unit relates to the Ministry of Education as part of the Headquarters and is directly responsible to the Permanent Secretary. There are four professional staff headed by a Principal Economist with a Senior Economist and two economists.

The functions of the Planning Unit are as follows:

i) To assist the Ministry of Education in formulating projects and programmes.

ii) To seek funding for viable projects and programmes, mostly from Ministry of Finance and Development Planning.

iii) To monitor implementation of educational projects and programmes.

iv) To evaluate and appraise projects.

v) To coordinate the preparation of the education chapter of the National Development Plan.

vi) To collect and compile education statistics for planning purposes.

vii) To act as liaison between the Ministry of Education and the Ministry of Finance and Development Planning with regard to planning issues.

viii) To prepare reports on donor funded projects.

ix) To advise the Permanent Secretary on educational planning in general.

EDUCATIONAL RESEARCH IN BOTSWANA

HISTORY

In 1977, the National Commission on Education carried out the first comprehensive evaluation of the education system since independence. Based on wide participative consultation throughout the country, recommendations for the future of education were developed, contained in the report *Education for Kagisano*, and accepted by Government, as translated into national policy by the National Assembly in late 1977. The Commission was reconstituted in 1979 to assess progress on the implementation of the plan. Thus, there has been a clear strategic thrust to development efforts in education for the past decade and a precedence for gathering information, formative feedback, and policy adjustment to effect educational development.

A more recent set of assessments of the education system was carried out by the Ministry of Education through the IEES (Improving the Efficiency of Educational Systems) Project. The initial report, *Botswana Education and Human Resource Sector Assessment* (1984; updated in 1986, with addendum each year), led to the JSEI (Junior Secondary Education Improvement) Project (1985), targeting the junior secondary subsector as a priority area. The IEES Project has remained linked to the Planning Unit in the Ministry of Education and continued to work on the generation of timely system information for the managerial level of the ministry and the long-term maintenance of relevant databases for system planning and policy analysis. JSEIP has been linked primarily to the Deputy Permanent Secretary's Office and the Department of Curriculum Development and Evaluation, less directly to the new Department of Teacher Education, Department of Secondary Education, and Molepolole College of Education, and peripherally to the Department of Primary Education, University of Botswana, Primary Teacher Training Colleges, and the new Tonota College of Education. The information needs addressed are departmental, programmatic, or substantive. Throughout the operational period of IEES and JSEIP, the primary education sector has been monitored and assisted by PEIP (Primary Education Improvement Project), first initiated in 1980. PEIP focuses on the preservice and inservice of primary school teachers. The primary link is through the University of Botswana and the development of the first sub-Sahara Department of Primary Education. These three closely related projects promote and encourage research and routine information maintenance from the system level down through specifics of content and method issues for the classroom.

In addition to PEIP, the University of Botswana contributes both faculty research and larger project research through the National Institute for Research/Education Division, also of the University of Botswana.

RESEARCH AREAS

Research in PEIP, JSEIP, and IEES has been guided by the Commission and General Assembly arguments for educational development. Their recommendations have set in motion rapid system growth, vast structural changes, and new and innovative instructional developments. The research provides rich description and thoughtful reflection to inform policy assessments and adjustments for quality education. The following selected papers provide some indication of research scope and level of focus.

System. Most of the work dealing with general system issues is handled by the Planning Unit of the MOE. Staff members of the unit are seconded to the MOE from the Ministry of Finance and Economic Planning. Their brief is to provide information for efficient program planning and development across the various professional departments. This information in turn provides the managerial context for improvements in the education system. The IEES Project has played a prominent role in these endeavors and the supportive training necessary to develop the capability of the unit. The papers below reflect the ministry-wide concerns of the Planning Unit; current efforts are focused on the development of the education section of the National Development Plan 7.

Burchfield, S. A. (1990). *Educational Planning Projections.* Gaborone, Botswana: Planning Unit.

Hartwell, A. S. (1988). *Systems Development: Activities and Products for the Botswana Ministry of Education Planning Unit.* Gaborone, Botswana: JSEI and IEES Projects.

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Pigozzi, M. J., & Cieutat, V. J. (1988). *Education and Human Resources Sector Assessment Manual.* Tallahassee, Florida: IEES.

Snyder, C. W., Jr., & Nagel, J. (1988). *Indicators of Quality in Botswana Primary Education.* Gaborone, Botswana: IEES.

Windham, D. M. (1988). *Improving the Efficiency of Educational Systems: Indicators of Educational Effectiveness and Efficiency.* Tallahassee, Florida: IEES.

Yoder, J. (Ed.). (1989). *Effective Schools Research.* Gaborone, Botswana: University of Botswana.

Departmental. The Department of Curriculum Development and Evaluation was created by the National Commission to address the issue of improved instruction. JSEIP was designed to assist in the institutional and professional development of this department. Research in this area has focused on the organizational issues entailed in both internal development and external lateral links of the department with other facets of the ministry and school system. These are the mechanisms that enable the instructional system to improve.

Allen, P. J. (1989). *Policies Guiding the Department of Curriculum Development and Evaluation.* Gaborone, Botswana: JSEIP.

Meyer, J. W., & Nagel, J. (1989). *Policy and Organization in Curriculum Development in Botswana.* Gaborone, Botswana: JSEIP.

Nagel, J. (1990). *Organizational Issues in Curriculum Development in Botswana: A Follow-up Report.* Gaborone, Botswana: JSEIP.

Snyder, C.W., Jr. (1990). Affective Context of Schools as a Potential Indicator of Teacher Receptivity to Instructional Change and Teacher Worklife Quality. In D. W. Chapman & C. A. Carrier (Eds.), *Improving Educational Quality: A Global Perspective.* New York: Greenwood Press.

Programmatic. The Nine Year Education Programme, as proposed by the National Commission, was initiated in earnest about 1983, after appropriate infrastructure was in place or under development. Based on extensive consultation, this program entailed wide-ranging instructional changes to meet the expectations of the public and to render the curriculum more 'relevant' and 'practical.' IEES sponsored University of Botswana research to examine the policies and practice of community consultation in Botswana education, and JSEIP and PEIP helped to organize a national consultative conference series to provide feedback and continuing information from the various relevant constituencies concerned with implementation of the program. Enhancement of the consultative process ensures acceptance and involvement in the implementation of changes intended to improve the quality of schooling.

Cownie, D., & Ives, L. (1990). *Art Education and Art Employment Research Survey.* Gaborone, Botswana: SIAPAC and JSEIP.

Meyer, J. W. (1990). *Community Concerns: Public Expectations and Educational Development in Botswana.* Gaborone, Botswana: JSEIP.

Molutsi, P. (1989). *Strengthening Local Education Capacity Through Community Involvement.* Gaborone, Botswana: University of Botswana and IEES.

Noel, K. (Ed.). (September, 1988 and April, 1989). *Therisana Ka Thuto: Community Consultation on Basic Education for Kagisano.* Second and Third Conference Proceedings. Selebi-Phikwe and Maun, Botswana: Ministry of Education.

Snyder, C. W., Jr. (Ed.). (April, 1988). *Therisana Ka Thuto: Community Consultation on Basic Education for Kagisano.* First Conference Proceedings. Tlokweng, Botswana: Ministry of Education.

Student Reports from the Ohio University and Florida State University Masters Programs, as submitted for degree qualification.

Student Reports from the Florida State University/University of Botswana joint Masters Program. (1988). *CJSS School Descriptions and Attitudes to the Nine Year Educational Programme.*

Not only has there been concern about consultation, but also performance of students in the program. Curriculum change must be accompanied by examination adjustments and improvements to take into account the professed intentions of the new instructional program. JSEIP has provided extensive assistance and training to the Department of CD&E in this area. PEIP has provided expertise and support to the University selection procedures for tertiary entrance.

Moahi, S., & Bowers, J. E. (1988, 1989, 1990). *Research and Testing Centre Research Notes.* Gaborone, Botswana: RTC (continuing series).

Nitko, A. J. (1989). *New Direction for Educational Testing at the Junior Secondary Level.* Gaborone, Botswana: JSEIP.

Nitko, A. J. (1990). *Implementing Criterion-Referenced Examinations in Botswana: Recommendations for JC Examination Reform.* Gaborone, Botswana: JSEIP and the Research and Testing Centre.

Sigman, V. A., & Randal, M. (1989). *The World of Educational Innovations.* Gaborone, Botswana: Curriculum Development Unit and JSEIP. (computer simulation game and teaching notes)

Substantive. The JSEI and IEES Projects have collaborated on a number of research activities focused on the classroom during the past four years, when expansion and restructuring particularly at the junior secondary level have been most notable. Ethnographic analyses, questionnaires, and extensive field observations have provided a rich information base for the consideration of educational context and status in the light of dramatic system growth and instructional, structural, and substantive changes. Consultative seminars within the ministry have supplemented the dissemination of papers and the formal discussions of their implications for instructional policy and practice. PEIP has also been involved with classroom observations of the primary classrooms, with particular attention to language problems. PEIP has also worked with Education Officers and school personnel to conceptualize and measure quality teaching in the primary schools. The instruments provide constructive feedback to improve teaching and a video training tape was produced to assist in the implementation of the approach for teachers.

Davis, R. (1988). *Needs Assessment of English Language Proficiency (Comprehension) Project.* (Volumes 1 and 2). Gaborone, Botswana: University of Botswana and JSEIP.

LeGrand, R., & Evans, M. (1989). *Botswana Teaching Competency Instruments Handbook.* Gaborone, Botswana: University of Botswana and PEIP.

Marope, M. (1989). *Suggested Procedures for Assessing the Educational Needs of Junior Secondary School Leavers Entering Post-JC Training.* Gaborone, Botswana: University of Botswana and JSEIP.

Milon, J. (1989).

Noel, K. (1989). *Report on Interviews with Teachers Who are Trialing New English Materials.* Gaborone, Botswana: JSEIP.

Snyder, C. W., Jr., & Ramatsui, P. R. (Eds.). (1990). *Curriculum in the Classroom: Context of Change in Botswana's Junior Secondary School Instructional Programme.* Gaborone, Botswana: Macmillan.

GENERAL FINDINGS

Botwana is clearly an example of the rapid expansion of mass education — with extension of universal education through 9 years of schooling. Discussions and comments from the general public support the view that there is a substantive commitment to rapid educational expansion and modernization. The prevalent perspective on Botswana as a modern social structure, on education as a grounding system, and on the connection between education and society as necessarily making sense at the individual life course level, generates many urgent conceptions of social problems — for all of which educational expansion and modernization are obvious solutions.

The dramatic increase in school accessibilty over the last ten years has been achieved without academic sacrifices. The large number of students in the system are doing as well now as their more select counterparts of the late 1970s. Unfortunately, there are still many children who do not attend school and academic quality remains marginal at the lower and middle levels of instruction. Much of the research has addressed the problem of academic quality, both in terms of classroom instructional considerations and systemic infrastructural development. It is clear that there are many things that could be done to improve instruction, but it is also clear that there are many infrastructural problems that impede and impair improvement attempts. The intention of the research is to provide rich and textured description of the classroom and the support subsystems.

The following summary statements describe education in Botswana schools:

Descriptions and Inferences from the Classroom Research

Instructional Interactions in the Classroom

- Teacher questions focus on 'factual information' with students supplying missing answers. Processes or relationships are not emphasized.
- Teacher questions evaluate class progress and are not used to diagnose problems of understanding. Student answers may indicate conceptual confusion or inadequate understanding, but follow-up is not engaged by the teacher.
- Incorrect answers by students are largely ignored by teachers. Students sometimes seem to offer 'guesses' because responding is valued, but the responses appear random.
- Questions are frequently of the sentence completion type, but little wait time for thought and minimal encouragement for self-expression is provided.
- Reasoning and discovery learning are not encouraged. This had been noted by the National Commission on Education in 1976 and remains true today.
- Elite language — i.e., technical terminology — is emphasized. Most teacher questions require only one answer, emphasizing memorization of specific words.
- Students rarely ask 'why' or 'how' questions. They are treated and they act like recipients of knowledge rather than active learners.
- Much of what is intended to be 'practical' work is unsuccessful. The student ends up with no understanding of the process and an answer devoid of relevance, which is the opposite intended. The emphasis is on correct notes rather than effective instruction.
- Students, in many cases, lack the basic skills to effectively gain from practical work in the subject area.

- Instruction is largely oral; examinations are written — mismatch that probably results in underestimation of learning.
- Writing tests and marking/revising them in the classroom is a common activity to prepare for the JCE. The exam is the *raison d' être* of the entire programme.
- Significant variation exists in teacher use of instructional materials — unfortunately, most infrequently use textbooks and basic instructional materials, but some of the more effective schools/teachers seem to use these resources well.
- Although junior secondary and primary are structurally quite different, the behaviour of teachers and classes at the two levels differs very little. The teaching scripts have little to do with the age or development of the students.
- Teacher behaviour in the classroom is to some extent a function of the subject area taught, the teacher's social class background (including cultural match with students), the teacher's preservice and inservice training experiences, the supply of instructional materials, the pupils' literacy levels and verbal competency, and the school-level quality, incentives, and headmaster leadership.
- Student interest and attentiveness and teacher enthusiasm are key ingredients in effective classrooms in Botswana. Given the magnitude of the relationship between these variables and JCE results, student/teacher engagement of the instructional programme cannot be taken for granted.

Larger Instructional Issues

- Little is known about the way children learn in Botswana and the kinds of schema and skills they bring to the classroom.
- Language appears to be a large problem in the classroom. Many of the instructional strategies adopted by teachers and students may emerge merely to cope with language difficulties. English is not well understood; Setswana is frequently needed to clarify conceptual ambiguities. However, in some parts of Botswana, a language other than Setswana is the home language. Accordingly, communication in the classroom is a major problem for teachers.
- Curriculum reform may not be enough to offset language problems. Neither students nor teachers necessarily have extensive experience

with the English language except in the classroom. This area requires greater attention and sensitivity.

- The instructional programme for the nine years of basic education is ambitious. Teachers seem to have difficulty utilizing their special skills, when available, or attending to noted problems in the particular class because of their schedule to meet the expectations of the syllabi.
- Teachers are unlikely to enthusiastically implement new technologies or innovations unless they are part of the development process and receive adequate training to enable them to feel efficacious and have the skills to be effective. The quality of teacher worklife must be taken into account as much as hoped-for student gains in achievement.
- Little is known about the way teachers in Botswana react and adjust to instructional programme intrusions.
- There appears to be a mismatch between what the teachers believe to be effective teaching and the kind of behaviours that actually take place in the classroom, as they attempt to meet the rigours and expectations of an ambitious syllabus regime, with increasingly heterogeneous student bodies.
- Curriculum reform is largely in the hands of Batswana, but there is still considerable dependence on individuals from other cultures and backgrounds in much of the technical work of curriculum design and development. External influences can be positive or negative, but they should be openly discussed and considered.

Some Recommendations

- Facilitation of active pupil participation in classroom instruction could be enhanced by 'turn-taking' procedures, greater wait time, 'recycling' questions, and greater reliance on questions that draw on students' experiences to enrich their understandings.
- Communication in the classroom could be improved by greater clarification of the teachers' intentions at the outset, signalling important information to draw more attention to it, translating complex ideas in other languages to ensure comprehension, and emphasizing more student contributions to the flow of classroom activities.
- Unless supported by adequate preservice and inservice training, innova-

tions should be small, relying on the dynamics of the open system for change in reaction to the micro intervention.

- More needs to be known about the 'cultural collisions' that occur between the expectations of the school and the experiences in the background of the child. What cultural concepts, expectations, and language skills do students bring to their classrooms? How can classroom experiences build on their knowledge and attitudinal bases?
- Improved communication in the schools, increased consultation, and measured adjustments to workload and task complexity in the introduction of innovations are important variables in keeping changes within the range of perceived performance efficacy of teachers and contributing to the quality of worklife of teachers and more effective performance.
- More research is needed to understand the 'flow' of classroom dynamics. Are there just 'natural' teachers or can we improve and develop teachers through better teacher education and training? The quality of instruction is clearly more than the sum of materials, credentials, curriculum, and facilities.
- Interesting and effective classrooms seem to have certain characteristics: more focused orientation, greater instructional time devoted to discussion and small-group work, more accurate and thorough presentations of subject content, teachers are well-prepared, class sessions are well-organized, information is logically presented, teachers are sensitive to student needs, and individual lessons are generally more successful.

TABLES

TABLE 1. EDUCATIONAL EXPANSION, 1960-1986

	1961	1962	1964	1966	1968	1970	1972	1974	1976	1978	1980	1982	1984	1986
PRIMARY														
Schools		235	241	251	257	282	311	316	335	376	415	484	512	537
Teachers		1305	1364	1673	1791	2275	2467	3047	3921	4641	5316	5767	6794	7324
Pupils		46536	62839	71546	78963	83002	81662	103711	125588	145459	171914	163218	209772	235941
SECONDARY														
Schools(Including private)		6	8	9	10	11	15	29	32	35	38	42	58	73
Gov't. Senior Secondary														23
Junior Secondary														45
Teachers		50	61	89	131	197	288	492	653	731	851	984	1216	1619
Students		764	1036	1531	2299	3905	5564	10308	13991	16086	18325	20953	27364	35966
TEACHER TRAINING														
Colleges		1	2	2	2	3	3	3	3	3	3	3	3	4
Students		117	211	293	322	283	302	409	562	669	844	984	999	1317
UNIVERSITY														
Students (Full-time)	6	19	48	66	121	204		365	537	762	928	1095	1349	2062
RECURRENT EXPENDITURE														
Rand/Pula (millions) (MOE only)				0.92	2.20	2.92	4.15	6.16	12.02	20.98	34.00	48.08	75.57	155.09

Notes: Figures for teacher training include only full-time courses for primary teachers.
(Secondary teacher training at Francistown TTC, the University, and Molepolole College of Education is not included.)
Figures for University students include all Botswana citizen students regardless of their country of study but the figures are not strictly comparable between years.
Education Statistics did not include private, community, and unaided secondary schools before 1973.
(This table therefore understates the number of secondary schools, teachers and students for the years 1968-72.)
Figures for recurrent expenditure are in current prices for each year - not adjusted for inflation.
The figures given for 1986 are approximate and provisional.

Sources: D.M.Lesetedi, A Summary of Education Statistics 1968-81 in M.Crowder (ed.), Education for Development in Botswana (Gaborone, Macmillan, 1984.)
Education Statistics (Gaborone, Central Statistics Office, various years).
Report of the Education Department for the years 1965 and 1966 (Gaberones, Dec.1966).
U.Kann, The Second University of Botswana - an evaluation of third country training (Gaborone, SIDA, 1980).
National Development Plan 1985-91.

This table supplied by Planning Unit, Ministry of Education.

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TABLE 2. SUMMARY OF ENROLMENT PROJECTIONS

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
						PRIMARY								
STD.1	41.2	39.5	42.5	44.1	45.8	47.5	48.6	49.7	50.8	51.9	53.1	54.3	55.6	56.3
STD.2	37.1	39.4	37.8	40.6	42.2	43.8	45.4	46.5	47.5	48.6	49.7	50.8	51.9	53.1
STD.3	35.9	37.0	39.3	37.7	40.5	42.1	43.6	45.3	46.3	47.3	48.4	49.5	50.6	51.7
STD.4	37.8	39.7	41.0	43.4	42.1	44.7	46.5	48.3	50.1	51.3	52.5	53.6	54.8	55.1
STD.5	29.7	32.4	34.0	35.2	37.2	36.2	38.4	39.9	41.4	43.0	44.1	45.0	46.0	47.1
STD.6	30.2	30.4	33.1	34.8	35.0	38.1	37.1	39.2	40.9	42.4	44.0	45.1	46.1	47.1
STD.7	37.0	38.3	39.6	45.0	46.6	46.3	46.8	43.7	44.3					
TOTAL:	248.9	256.8	267.4	280.8	290.4	298.7	306.5	312.6	321.3	284.6	291.7	298.3	305.1	312.0
						JUNIOR SECONDARY								
									STD.7	42.1	42.4	43.9	45.0	46.1
FORM I	12.5	17.0	18.0	22.4	25.2	27.2	31.3	34.5	36.5	38.0	38.2	39.8	42.1	43.2
FORM 2	10.4	12.5	17.1	18.7	23.1	27.5	29.4	33.4	37.0	39.4	41.1	41.6	43.1	45.4
FORM 3	5.7													
TOTAL:	28.5	29.6	35.1	41.1	49.4	54.7	60.7	67.9	73.5	119.4	121.7	125.3	130.2	134.7
						SENIOR SECONDARY								
		4.5	6.3	7.1	7.1	7.1	9.7	10.4	11.8	13.1	13.9	14.5	14.7	15.2
FORM 4	3.2	3.8	4.5	6.3	7.1	7.1	7.0	9.6	10.3	11.7	12.9	13.8	14.4	14.6
FORM 5	2.4	3.3	3.3	4.5	6.3	7.1	6.7	6.7	9.1	9.8	11.1	12.3	13.1	13.7
TOTAL:	5.6	11.6	14.7	17.9	20.5	21.2	23.4	25.5	31.2	34.5	38.0	40.6	42.2	43.4

NOTE: These projections are based on the Planning Unit's mid-term review of NDP6, and based on actual data through 1986.
For projections from 1992 to 2000, we have used a model which is based on estimated student flow rates.
The shift from 7 years primary and 2 years junior secondary to 6 years primary and 3 years junior secondary is planned to take place in 1996.
For the period 1988 to 1991 we have used the estimates of enrolment based on the cumulative total of each individual school profile for junior and senior secondary schools.

Prepared by the Planning Unit, MOE - September 1988

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TABLE 3. 20 YEARS OF EDUCATION IN BOTSWANA

	1966	1986
PRIMARY		
Schools	251	537
Teachers	1673	7324
Pupils	71546	235941
Expenditure* (Recurrent)		38.9 P.mill
SECONDARY		
Schools	9	73
Teachers	89	1619
Students	1531	35966
Expenditure (Recurrent)	--	25.7 P.mill
TEACHER TRAINING		
Colleges	2	4
Students	293	1317
Expenditure (Recurrent)	--	2.6 P.mill
UNIVERSITY		
Students (Full-time)	66	2062
Expenditure (Recurrent)	--	15.1 P.mill
TOTAL EDUCATION RECURRENT EXPENDITURE		
Rand/Pula (millions) (MOE only)	0.92	162.09 P.mill

*Recurrent expenditure for primary schools in
1986 includes an estimated P.7 mill. from District
All figures are from CSO Annual Statistics

TABLE 4. AGE SPECIFIC ENROLMENT RATIOS 1987

Age	De facto medium variant pop. projection		Enrolment		Age Specific Enrolment Ratios	
	Males	Females	Males	Females	Males	Females
6	19466	19443	2259	2838	11.60	14.60
7	18518	18526	10165	11528	54.89	62.23
8	17570	17548	15634	16830	88.98	95.91
9	16621	16570	16599	17116	99.86	103.30
10	15673	15653	16383	17208	104.53	109.93
11	14837	14735	15697	16997	105.80	115.35
12	14112	14063	14479	16064	102.60	114.23
13	13554	13574	11457	13483	84.53	99.33
14	13163	13268	6367	8836	48.37	66.60
15	12829	12962	5005	4832	39.02	37.28
16	12104	12718	2334	1876	19.28	14.75
17	11602	12473	834	964	7.19	7.73

TABLE 5. GROSS AND NET ENROLMENT RATIOS: PRIMARY EDUCATION 1981 - 1988.

School Year	Gross Ratio			Net Ratio		
	MF	M	F	MF	M	F
1981	101.6	95.0	108.0	85.9	80.2	91.4
1986	110.4	106.6	114.2	93.4	89.6	97.2
1987	111.1	107.2	115.0	93.6	89.8	97.3
1988	113.8	109.8	117.9	95.3	91.3	99.3

TABLE 6. PRIMARY SCHOOL DEVELOPMENT 1962 - 1988.

Year	N of Schools	N of c/rooms	Enrolment Male	Enrolment Female	Enrolment Total
1962	235	N/A	19695	26841	46536
1966	251	N/A	31794	39752	71546
1967	252	N/A	32837	38740	71577
1968	257	1241	36741	42222	78963
1969	280	1305	38534	43680	82214
1970	282	1442	38949	44053	83002
1971	288	1519	36575	41867	78442
1972	294	1679	37759	43903	81662
1973	308	1748	43654	51857	95511
1974	316	1847	47098	56613	103711
1975	323	2003	52344	63949	116293
1976	335	2271	56383	69205	125588
1977	349	2523	61635	75655	137290
1978	377	2706	65211	80248	145459
1979	394	3053	70457	86207	156664
1980	415	3441	78111	93803	171914
1981	423	3631	81975	96132	178107
1982	463	4052	87284	100934	188218
1983	502	4473	92593	105735	198328
1984	512	4593	99005	110767	209772
1985	528	4832	106423	117185	223608
1986	537	4932	113693	122248	235941
1987	552	5157	120196	128627	248823
1988	559	5430	126327	135025	261352

TABLE 7. INCREASE IN STANDARD 1 AND TOTAL ENROLMENT 1966 - 1987.

Year	Stand. 1 *Enrolm.*	Per cent *Increase*	Total *Enrolm.*	Per cent *Increase*	Total *Schools*	Per cent *Increase*
1966	20616		71546		251	
1967	16992	-17.6%	71577	0.0%	252	0.4%
1968	17825	4.9%	78963	10.3%	257	2.0%
1969	14780	-17.1%	82214	4.1%	280	8.9%
1970	12721	-13.9%	83002	1.0%	282	0.7%
1971	10747	-15.5%	78442	-5.5%	288	2.1%
1972	13506	25.7%	81662	4.1%	294	2.1%
1973	21509	59.3%	95511	17.0%	308	4.8%
1974	20756	-3.5%	103711	8.6%	316	2.6%
1975	25414	22.4%	116293	12.1%	323	2.2%
1976	23833	-6.2%	125588	8.0%	335	3.7%
1977	25556	7.2%	137290	9.3%	349	4.2%
1978	24199	-5.3%	145459	6.0%	377	8.0%
1979	27314	12.9%	156664	7.7%	394	4.5%
1980	31912	16.8%	171914	9.7%	415	5.3%
1981	29583	-7.3%	178107	3.6%	423	1.9%
1982	30870	4.4%	188218	5.7%	463	9.5%
1983	32157	4.2%	198328	5.4%	502	8.4%
1984	36039	12.1%	209772	5.8%	512	2.0%
1985	37800	4.9%	223608	6.6%	528	3.1%
1986	38858	2.8%	235941	5.5%	537	1.7%
1987	40726	4.8%	248823	5.5%	552	2.8%

TABLE 8. CLASSROOM SHORTAGE 1977 AND 1987 BY DISTRICT.

	Classrooms			Streams			Classroom shortage	
District	1977	1987	% change	1977	1987	% change	1977	1987
North East	161	343	113%	248	379	53%	87	36
Central N	212	418	97%	383	638	67%	171	220
Central C	519	971	87%	959	1369	43%	440	398
Central S	178	375	111%	397	526	32%	219	151
Kgatleng	149	272	83%	302	383	27%	153	111
Kweneng	280	643	130%	511	957	87%	231	314
Southern	274	629	130%	502	1012	102%	228	383
South East	104	186	79%	151	206	36%	47	20
Kgalagadi	104	159	53%	142	230	62%	38	71
Ghanzi	52	106	104%	75	141	88%	23	35
North West	152	338	109%	272	570	110%	110	232
Gaborone	97	314	224%	133	429	223%	36	115
Francistown	99	179	81%	115	216	88%	16	37
Lobatse	70	147	110%	74	122	65%	4	-25
Selebi-Phikwe	62	77	24%	74	114	54%	12	37
TOTAL	2523	5157	104%	4338	7292	68%	1815	2135

Source: Education Statistics, Central Statistics Office, various years.

TABLE 9. PROPORTION UNTRAINED PRIMARY SCHOOL TEACHERS BY DISTRICT

DISTRICT	1977 %	1979 %	1982 %	1984 %	1986 %	1988 %
NORTH-EAST	37	45	36	36	32	16
CENTRAL 'N'	43	36	36	32	44	27
CENTRAL 'C'	44	37	31	28	32	21
CENTRAL 'S'	48	34	35	26	39	24
KGATLENG	41	38	32	30	29	9
KWENENG	53	42	34	33	41	24
SOUTHERN	46	42	39	31	31	18
SOUTH-EAST	11	16	19	22	24	6
KGALAGADI	53	44	22	34	33	4
GHANZI	46	38	17	32	21	9
NORTH-WEST	57	49	45	33	25	19
GABORONE	1	7	34	22	28	15
FRANCISTOWN	12	27	14	12	13	11
LOBATSE	1	3	25	17	17	12
SELEBI-PHIKWE	21	21	36	24	31	9
JWANENG				8	6	16
TOTAL	41	36	33	29	32	18

TABLE 10. PRIMARY EDUCATION EXPENDITURE 1970/71 - 1986/87
(IN PULA CURRENT PRICES '000S)

	1970/71	1975/76	1980/81	1985/86	1986/87
1.RECURRENT	1.5	4.0	16.4	31.9	44.8
2.TEACHER SAL	1.2	3.4	15.9	31.1	38.2
3. 2/1	80.0%	84.8%	97.0%	97.5%	85.3%
4.DEVELOPMENT	0.1	3.6	3.8	6.4	5.5
5.TOTAL PRIM ED	1.6	7.6	20.2	38.3	50.3
6.REC TOTAL	15.8	45.7	145.6	472.4	1256.6
7. 1/6	9.5%	8.8%	11.3%	6.8%	3.6%
8.DEV TOTAL	8.5	33	91.2	247.5	405.2
9. 4/8	1.2%	10.9%	4.2%	2.6%	1.4%
10. GDP	N/A	269.8	790.2	2235.3	2604.6

Table 11. FUNDING SOURCES OF THE NATIONAL LITERACY PROGRAMME 1980/81 - 1985/86
(IN PULA CURRENT PRICES)

FUNDING SOURCE	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	TOTALS	SIX-YEAR DISTRIBUTION BY SOURCE
DDF	99779	52814	2787	4296	15694	277109	452499	8.6%
KFW	68295	69696	41072	0	29037	25461	253561	4.8%
NETHERLANDS	0	72174	100238	68939	28328	3050	272729	5.2%
SODA	0	395245	267141	554351	780972	248611	2246320	42.5%
INICEF	0	0	328497	34531	108	652	107291	2.0%
GTZ	0	0	0	255000	478713	860918	1923128	36.4%
NO DONOR	0	0	0	0	32004	0	32004	0.6%
TOTAL	168074	609929	739735	917117	1364856	1415801	5287532	100

NAMIBIA

ELEVENTH CONFERENCE OF COMMONWEALTH EDUCATION MINISTERS

BARBADOS : 29 OCTOBER - 2 NOVEMBER 1990

COUNTRY PAPER : NAMIBIA

The theme of this conference: 'Improving the quality of Basic Education' is highly appropriate for the last decade of the century. This paper highlights some of the realities, experiences and thoughts for the future of basic education in Namibia.

1. Education in Namibia prior to Independence

To fully understand the complexity and magnitude of educational problems confronting the new government of independent Namibia, the situation prevailing up to 21 March 1990 should be briefly sketched.

Formal education for the Namibian people was first introduced by missionaries early in the 19th century. Being extremely limited in scope and involving a mere fraction of the population, this was at best tolerated by both the German colonial power and its successor, South Africa. While creating educational opportunities for white settler children wherever feasible, the colonial administrations virtually ignored the educational needs of the majority of Namibians up to 1950. When government education for the indigenous population finally emerged, it turned out to be racially segregated according to the South African apartheid philosophy. The Bantu Education system, controlled from Pretoria, was enforced until replaced by an educational management system of ethnic administrations in 1976. Ten ethnic administrations each controlled the education of a particular ethnic or language group of the total population. As financing of education was made dependent on the income tax resources of the particular population group, the last decade of colonial rule saw an ever widening quality gap between education of the 'haves' and the 'have nots'. While in the affluent society (mainly white) modern facilities, highly trained teachers, adequate supply of materials and compulsory education up to age 16 led to successful education as manifested in annual pass rates exceeding ninety-percent, children of the majority of the population faced different conditions.

A study of the relevant data in the Appendix reveals most of the typical maladies and shortcomings of an educational system suffering from a serious lack or shortage of everything, except pupils. Despite education not being compulsory for population groups other than whites, there has been a steady increase in total enrollment figures. From 297 000 in 1983, the number of children attending school increased over the last seven years to 372 572 in 1989 - an annual increase rate of roughly 3,5% which is but marginally higher than the estimated population growth rate. This demonstrates that, mainly due to lack of resources, no real gains in provision of access to formal schooling was achieved in the period mentioned. The percentage of the total population attending school stabilized at about 28% throughout this period. These figures should be regarded with caution, as no national census has been conducted since 1980, and even that last effort was seriously flawed.

For this reason, any attempts at determining the literacy rate in Namibia can only be guestimates, but it is generally agreed upon that illiteracy might be as high as sixty percent. Given the neglect of education of the majority of Namibians in the past, this high illiteracy figure comes as no surprise.

Pre-independence education in Namibia was characterized by fragmentation in control. Eleven education departments, each headed by a director and a headquarters staff of educational planners, inspectors and related educational and administrative personnel, were responsible for the management and control of a mere 1 171 schools with just under 400 000 pupils. This led to an extremely top-heavy management structure and wasteful duplication of functions. It stands to reason that rationalization and the creation of a unified national education management system presented itself as one of the highest priorities facing the government after independence.

At the school level itself Namibia has to find solutions for a variety of well known problems: lack of school buildings resulting in overcrowded classrooms and would-be applicants being turned away; unqualified and under-qualified teachers, being roughly 70% of teachers presently employed;

frequent repetition of grades and a high drop-out rate even at primary level; insufficient supply and in some cases a total lack of teaching aids and learning materials; serious deficiencies in the teaching of the vital areas of mathematics, science and vocational options as a result of a shortage of trained teachers and equipment; inappropriate syllabi 'imported' from South Africa and not tailored to the realities, needs and aspirations of Namibian pupils, etc. To this list could be added a variety of secondary problem areas such as a confusing and intricate language situation, the discrepancy and difference in quality between education in the urban and rural areas, lack of housing for teachers at rural schools, unemployment of school leavers, and many more. The past year also saw the return of about 40 000 Namibians from neighbouring countries and other parts of the world to their fatherland, accompanied by their children. The influx of these returnee children necessitated emergency measures and has put further strain on an already severely inadequate education system.

The new Namibian nation indeed found itself confronted with an extremely difficult educational challenge right from the start. How can this immense task be approached? In particular, what policies and strategies will best serve the Namibian ideal of providing equal and appropriate basic education for all its citizens as a first step towards improving the quality of life and ensuring sustained economic and social development for Namibians?

2. Policies and strategies

The Constitution of the new free Republic of Namibia guarantees a national education system based on the principles of democracy, unity and functionality.
Article 20 (Education) reads:

(1) All persons shall have the right to education.

(2) Primary education shall be compulsory and the State shall provide reasonable facilities to render effective this right for every resident within Namibia, by establishing and maintaining State schools at which primary education will be provided free of charge.

(3) Children shall not be allowed to leave school until they have completed their primary education or have attained the age of sixteen (16) years, whichever is the sooner, save in so far as this may be authorised by Act of Parliament on grounds of health or other considerations pertaining to the public interest.

(4) All persons shall have the right, at their own expense, to establish and to maintain private schools, or colleges or other institutions of tertiary education provided that -

(a) such schools, colleges or institution of teritiary education are registered with a Government department in accordance with any law authorising and regulating such registration;

(b) the standards maintained by such schools, colleges or institutions of tertiary education are not inferior to the standards maintained in comparable schools, colleges or institutions of tertiary education funded by the State;

(c) no restrictions of whatever nature are imposed with respect to the admission of pupils based on race, colour or creed;

(d) no restrictions of whatever nature are imposed with respect to the recruitment of staff based on race or colour.

On Cultural Rights the Constitution in Article 19 states as follows:

Every person shall be entitled to enjoy, practise, profess, maintain and promote any culture, language, tradition or religion subject to the terms of this Constitution and further subject to the condition that the rights protected by this Article do not impinge upon the rights of others or the national interest.

In short, the Namibian Constitution guarantees certain basic rights as the foundation of a national education policy, namely:

(i) Right to education.
(ii) Free primary education.
(iii) Compulsory schooling of all children up to the age of 16 or to completion of primary education.
(iv) Right to cultural expression in language, tradition and religion.
(v) Right to private schooling.
(vi) Protection against discrimination based on race, colour or creed.

These are the minimum guiding principles for education and training in a free Namibia. Translating these principles into educational goals and strategies, we have decided, as a matter of priority, to lay the foundation for intermediate programmes aimed towards the following goals -

(a) improved access to schooling;
(b) improved learning outcome and learning with understanding;
(c) improved curricula and examination systems;
(d) equitable distribution of educational resources and services;
(e) reform of secondary education;
(f) broadening of adult and non-formal education; and
(g) improved provision of special education for the emotional, mental or physical handicapped.

All of these priority areas, with the exception of (e), have a direct bearing on the conference theme of Improving the Quality of Basic Education and will be discussed against this background.

3. Improving the Quality of Basic Education in Namibia: Past efforts and strategies for the immediate future.

The problems of access to education, drop-out and high failure rates are prominent features of basic education in Namibia and can be attributed to a combination of negative factors ranging from the availability of classrooms to content of the curriculum and a harsh examination and promotion system. Against the background of limited own resources, a major input in all areas is financially impossible and efforts aimed at improving quality are directed at the most pressing needs and priorities.

3.1 Physical infrastructure: Classrooms, teacher housing and boarding facilities.

A high population growth rate, increasing demand for formal education and limited financial resources have combined to create a serious backlog in the provision of schools and related facilities.

The rate of construction of new schools and the addition of classrooms to existing schools simply could not keep up with the demand for entry to particularly primary education. It is estimated that countrywide more than 100 000 children under the age of 16 are not attending school. Although factors related to the socio-economic situation of the family, repeated failures and the absence of compulsory education contribute to this phenomenon, the main reason is access to a school. In most urban and some densely populated rural areas available classrooms are overcrowded and applicants are being turned away for lack of space, while failing a grade twice normally results in being denied further access to the school. To alleviate this problem double sessioning is used on a limited scale in selected urban primary schools with some children being taught in the morning and others in the afternoon by a different set of teachers.

In sparsely populated rural areas access to basic education is influenced by distance from the nearest school, lack of transport and the availability of boarding facilities. A comprehensive replanning of the distribution of schools in rural areas is needed to ensure access for children in remote villages or on isolated commercial farms.

Frequently the rural primary school in Namibia consists of a thatched hut or a few bare classrooms, with no storage space, toilets, or office for administration. A shortage of teacher housing at the schools makes it virtually impossible to recruit teachers from outside a particular rural community and thus severely restricts teacher mobility and the improvement of the quality of education in these areas.

At the junior secondary level or higher phase of basic education, a shortage of specialized classrooms, workshops, laboratories and libraries seriously hampers the teaching of vital subjects such as natural sciences and vocational options. This necessitates restriction of the subject options available and leads to purely theoretical study and lack of understanding, thus lowering the quality of basic education. The government of Namibia intends tackling the problems of access to formal basic education and the quality of facilities by

3.1.1 Speeding up the building programme for schools and related facilities. Considering the limited national budget, low cost but functional structures using local labour and materials is under investigation, but still Namibia needs massive foreign aid in order to alleviate its shortage of schools.

3.1.2 Extending the system of double sessioning, to accommodate more children in classrooms available. The financial implications in the form of remuneration of additional teachers and provision of learning materials severely restricts countrywide use of double sessioning, which also proved to be unpopular with teachers and parents but nevertheless preferable to no schooling at all.

3.1.3 Involving communities in the provision and construction of classrooms. The possibilities of communities contributing materials and services in addition to government inputs in building new schools or extending and upgrading existing facilities is currently being investigated.

3.1.4 Providing adequate housing for teachers in rural areas. In this programme local communities can play a vital role.

3.1.5 Expanding selected primary schools to incorporate the junior secondary phase. Bringing the full cycle of basic education (Grades 1 to 9) closer to people in the rural areas will discourage dropping out at the end of primary school and ease the pressure on boarding facilities at junior secondary schools in towns and major centres.

3.2 Curriculum and Assessment

3.2.1 Curriculum reform is overdue in Namibia. The South African based curriculums used in our schools have alienated the majority of learners by making them see themselves in the education mirror of South Africa.

What Namibia needs is a relevant curriculum for basic education tailored to the needs and realities of the local situation - a curriculum sufficiently broad based and duly balanced to provide a solid base for further education for some, while preparing the majority for a better life and a contribution to the development of their community and the country.

While curriculum research done both inside and outside the country prior to independence has yielded valuable insight on specific problems such as the language situation, the content of History syllabi, teacher training, vocational options and broad curricular aspects, virtually none of this has found its way into schools since all educational effort has been directed towards passing the final external examinations controlled from South Africa. This could and will now change. To lead and direct this change the government has decided to establish the National Institute of Education Development (NIED). This Institute will be the nerve-centre for curriculum design and development; for language research and development; for the design and co-ordination of pre-service and in-service teacher training programmes and for the development of learning materials and education media. NIED is estimated to cost US $ 10 million and this investment is justified by the central role the Institute will play in revitalizing education in Namibia.

3.2.2 As the relationship between curriculum, assessment and modes of promotion of learners has a marked influence on what really happen in schools, redesigning the system of examination and promotion is vitally important. It has been noted in many reports on education in Namibia that the examination system is rigid and highly prescriptive. As such it stifles the creative efforts of teachers in using their own initiative and forces them to adhere to teaching methods, texts and questions aimed at obtaining an acceptable pass rate in final examinations. Without a change in this systems, any new curriculum is doomed to failure - learning with understanding, productive activities, innovative approaches and initiative will once again be sacrificed for the ultimate goal of memorized knowledge in order to pass external final examinations.

Against this background the Ministry is in the process of establishing a National Examination, Assessment and Certification Authority. Apart from taking over the functions of the existing Examination Board, this Authority will have, among others, the functions of:

(a) Investigating the implications and feasibility of a graded automatic promotion system for primary schools to replace the current harsh system of passing/failing. If implemented, graded promotion to the next grade can relieve the problem of frequent repeaters at primary level, unclogg the system and avoid low self-esteem associated with being a "failure" at school.

(b) Prescribing regulations for the administration of examinations and monitoring the conduct of external examinations, being Primary School Leaving Certificate, Junior Secondary Certificate and Senior Secondary Certificate.

(c) Issuing certificates to successful candidates.

(d) Developing reliable diagnostic and achievement tests required by the curriculum.

(e) Evaluating and accrediting training courses and certificates of training centres and NGO's offering non-formal or adult education.

Using this National Examination, Assessment and Certification Authority as a watchdog, Namibia can assure that appropriate standards are achieved and maintained in all phases of formal and non-formal education, thus enhancing quality right through the system.

3.3 Training and Professional Support for Teachers.

It has often been proved that a well-trained, enthusiastic and resourceful teacher can overcome adverse conditions (isolation, overcrowded classrooms, lack of learning materials, etc.) to still achieve excellent results and lead pupils to aquire adequate levels of knowledge, skills and sound values. In basic education in particular the teacher is the kingpin - the improvement of teaching outcomes by and large depends on teacher competence. Unfortunately, it is in this vital area that Namibian education faces its biggest problems.

3.3.1 Teacher training levels and past efforts to improve competence:

As the Public Service Commission defines a qualified teacher as having completed std. 10 (Matric) plus three years of teachers training, the data in figure 8 clearly indicates that 79,9% of all Namibian teachers in 1989 were unqualified or at best underqualified. Of these, 35,6% or 4592 teachers out of a total of 12 885 never completed their secondary education, but might have some teachers training [categories ZA and ZB, figure 8], while a further 24,1% fall into catagory ZC having either completed secondary education but with no professional training or have some professional training but did not complete secondary education.

To futher compound the problem, the majority of underqualified or unqualified teachers serve in the northern regions of Katima Mulilo, Rundu and Ondangwa where the pupil/teacher ratio is most unfavourable [see figure 7] and support services and availability of teaching aids and resources totally inadequate. As the geographical distribution of pupils (figure 4) indicates, this constitutes the deprived learning environment of almost 70% of all children at school in Namibia. Clearly, there is little hope of raising the quality of basic education for the average child unless teacher competence can be improved, with the northern regions as priority areas.

Over the last decade various methods aimed at improving the competence of teachers were practiced, concentrated on the central and southern regions and administered by the now defunct Department of National Education and Administration for Whites. These programmes included:

(i) A distance education scheme enabling teachers to obtain higher academic school qualifications [Grades 10 and 12] free of charge. This programme proved to be highly successful as implemented on a limited scale in the central regions.

(ii) In-service training courses, over three to five days, aimed primarily at upgrading subject knowledge (e.g. Mathematics) of teachers. Teaching method and assessment were also covered to some extent.

(iii) In-school visits by a cadre of subject advisers from head office who observed teachers in the classroom situation, assessed teacher performance and pupils' progress and advised teachers on a one-to-one basis. This programme, now in its eleventh year, seems to have had little impact judged by continuing low pass rates. It proved to be costly and time consuming due to long distances travelled from Windhoek to outlying schools, and the average teacher could not be reached more than once or twice per year. Reconsideration of this programme is surely needed.

(iv) Teachers' centres in the major towns of Windhoek, Tsumeb, Otjiwarongo and Rundu where professional staff and a resource centre enable teachers to upgrade both subject knowledge and teaching practice. Although only accessible to a limited number of teachers in the immediate vicinity, this programme proved to be popular with teachers and highly effective.

(v) Information brochures, subject newsletters and examples of standard examination papers were provided to teachers on an infrequent basis.

3.3.2 Although a combination of these programmes has had a positive influence on the quality of education wherever it was available, it must be emphasized that the majority of schools in the populous northern regions were virtually excluded from these services. This situation calls for a comprehensive programme for in-service training with special emphasis on the neglected areas and aiming at meeting the following objectives -

(a) training in, and teaching of English, the new official language of the country; (b) professional upgrading in subject matter; and (c) re-orientation in methodologies of teaching.

Towards meeting in-service training needs, at least six or seven centres of teachers in-service training will be established in the various regions to serve teachers countrywide. Course materials and teaching materials, etc. will be developed and provided by the planned National Institute of Education Development (NIED).

As far as pre-service training is concerned, the Ministry will put up a task force to plan for the restructuring of teacher education and the optimal utilization of the five existing training institutions. In the comprehensive field of in-service and pre-service training of teachers, Namibia is in dire need of foreign aid and expertise.

3.4 Learning materials

Learning and teaching materials including text books, stationary, teaching aids, laboratory equipment, etc. are provided to government schools and some private schools free of charge. Due to the previous system of financing education through income tax resources of the particular ethnic group, there is a huge discrepancy between materials available in schools of the affluent society and the schools in the nothern poorer regions. This situation will have to be redressed in order to improve quality of education in all regions. In the development, selection and provision of learning materials for new curriculums for Namibia, the NIED is envisaged to play a central role in future.

3.5 Adult and non-formal education

Due to the fact that the educational system has been unresponsive to the learning needs of the majority of Namibians, the new government is duty-bound to respond in an effective manner to the learning needs of the out of school population. Up to now education and training opportunities outside the formal sytem were mainly restricted to the major urban centres and rarely within reach of the uneducated rural population. While government did offer alternative courses equivalent to school grades for adults in the southern and central regions, skills training has more or less exclusively been left to NGO's or parastatals. In this field the Rössing Foundation, the Otto Benecke Foundation, the Institute for Management and Leadership Training, the Private Sector Foundation, the U-Do Trust, the First National Development Corporation, the Namibian Farmers Union and various churches have all made valuable contributions in adult skills training in areas as diverse as agriculture, small business, technical training, child care and literacy. Unfortunately these efforts were unco-ordinated and reached but a small percentage of those in need of education and training.

Against this background new strategies and additional resources are required for the establishment of

(i) a sustained national literacy programme in the major local languages, eventually leading to literacy in the official language, English;

(ii) adult education programmes combining knowledge and skills training in a concept of life-long education;

(iii) pre-employment and job related training for unemployed youth to facilitate their entry into the job market.

As more than eighty percent of Namibians have access to radio programmes in their local language, the optimal use of radio in adult and non-formal education will be of vital importance in bringing education to the people in isolated rural areas. Support from outside the country is needed in the forms of financial aid and expertise in production to ensure a successful radio education service. Another viable concept is that of Rural Development Centres (RDC's) in the subsistance farming communities. In each RDC various government departments (Education, Agricultural Extension, Health, etc.) will work together to offer an integrated support service for the particular community.

For Namibia's widely spread and frequently isolated community, distance education is particularly suited to the needs of Adult Continuing Education. Once functional literacy has been reached, various programmes of distance education can be implemented, depending on the situation and needs of particular groups or individuals:

(i) Supply of text books, study guides, task sheets and related learning materials to isolated adult learners, supplemented by regular feedback on tutorials and tasks and backed by supporting radio learning programmes.

(ii) Supply of back-up study materials to learners enjoying a contact learning situation, or organizing themselves into study groups.

It stands to reason that substantial financial resources, materials and know-how will be needed for the design of programmes, production of learning materials and handling administration and logistics of distance education on a national scale.

The challenges for non-formal and adult education in Namibia are indeed great and varied. This task should be tackled with enthusiasm - the rewards will be a better educated, better trained and motivated population able to face the demands of development.

3.6 Higher Education

Tertiary education in Namibia is still in its infancy stage and apart from the training of teachers, nursing staff and technical artisans, local institutions are unable to provide the researchers, technologists and managers essential for national development. Against this background the Government will appoint a Commission on Higher Education with the following terms of reference:

To consider the provision of higher education in Namibia with special reference to -

(a) the organization and structure of the higher education system including the nature and location of higher education insitutions;

(b) the funding of higher education, both recurrent and capital;

(c) the entry point and duration of higher education courses;

(d) the governance of higher education and its relationship with government;

(e) the range and level of programmes in the higher education system; and

(f) the size of the higher education system in the medium and long term, in relation to national manpower needs. The Commission is expected to start its work by the end of the year and conclude its report early next year.

For the immediate future Namibians will continue to be in need of specialized training at institutions in other countries. At the same time expertise and quality of the staff manning local institutions of Higher Education should be developed. In both these areas, various forms of support and assistance from Commonwealth countries is essential.

3.7 Management of Education:

The most outstanding feature of Namibian education has been its fragmentation into eleven departments - organized along racial and ethnic lines. This system negatively influenced nation building and the ideals of equity and equality in education, and led to duplication of management structures and gross inefficiency in some sub-systems.

Restructuring and rationalization of educational services is thus a priority for the Namibian government. The unification of the various educational entities and the creation of a unified national system of education administration for all, is in progress. This process will be accomplished on the principle of a unified central administration and decentralization of services.

At central administration level the following organs, programmes and services will be established: Policy organs, administrative organs, educational programmes, cultural and sport programmes and educational service units.

The decentralized educational services are aimed at bringing the activities of the Ministry near to the people. It is intended, therefore, to establish the following Regional Centres to service and manage education at regional level: Regional Offices at Windhoek, Gobabis, Keetmanshoop, Otjiwarongo, Khorixas, Ondangwa, Rundu and Katima

Mulilo. In line with the democratic principles of community participation in education affairs, Regional Advisory Councils will be established in each region, with further community participation in District Advisory Boards and Local Advisory Committees down to the individual school level. These organs will advise the educational authorities in matters relating to local circumstances and needs as far as they affect the running of schools, the delivery of educational services and adult and non-formal education.

At the individual school level there is an urgent need to upgrade management by headmasters and their deputies. Although short in-service training courses for headmasters were offered on a limited scale prior to independence, the average level of management is of an unexceptable poor standard and has a negative influence on the quality of education. It is thus envisaged that headmasters, their deputies and potential future managers will be trained in both administrative and professional matters to enable them to successfully lead their staff in handling change and upgrading the quality of education at school level.

4. Concluding remarks

The process of reform in education and the rationalization of education services in Namibia has started. This task requires imagination, resourcefulness and co-operation from all and will be tackled in the spirit of partnership between the Government and the community. Particular care will be taken to ensure that, while efforts are directed toward improving quality of basic education for those learners previously excluded from this basic right, the high standards already obtained in schools of the mainly urban affluent society are maintained.

With dedication and the support of the outside world, Namibia too has the potential to achieve excellence in education.

TABLE OF APPENDICES

FIGURE 1 : NAMIBIA - EDUCATION CONTROL REGIONS - 1990.

FIGURE 2 : NAMIBIA - NUMBERS OF PUPILS ACCORDING TO SCHOOL PHASE - 1989.

FIGURE 3 : NAMIBIA - BOYS AND GIRLS ACCORDING TO STANDARDS - 1989.

FIGURE 4 : NAMIBIA - GEOGRAPHICAL DISTRIBUTION OF PUPILS (1989 STATISTICS).

FIGURE 5 : NAMIBIA - GEOGRAPHICAL DISTRIBUTION OF TEACHERS (1989 STATISTICS).

FIGURE 6 : NAMIBIA - GEOGRAPHICAL DISTRIBUTION OF PERMANENT CLASSROOMS (1989 STATISTICS).

FIGURE 7 : NAMIBIA - PUPIL/CLASSROOM RATIO AND PUPIL/TEACHER RATIO (1989 STATISTICS).

FIGURE 8 : NAMIBIA - NUMBERS OF TEACHERS ACCORDING TO CATEGORIES - 1989.

FIGURE 9 : NAMIBIA - TEACHERS TRAINING: STUDENTS ENROLLED PER TRAINING CENTRE ACCORDING TO THE LEVEL OF THE COURSES.

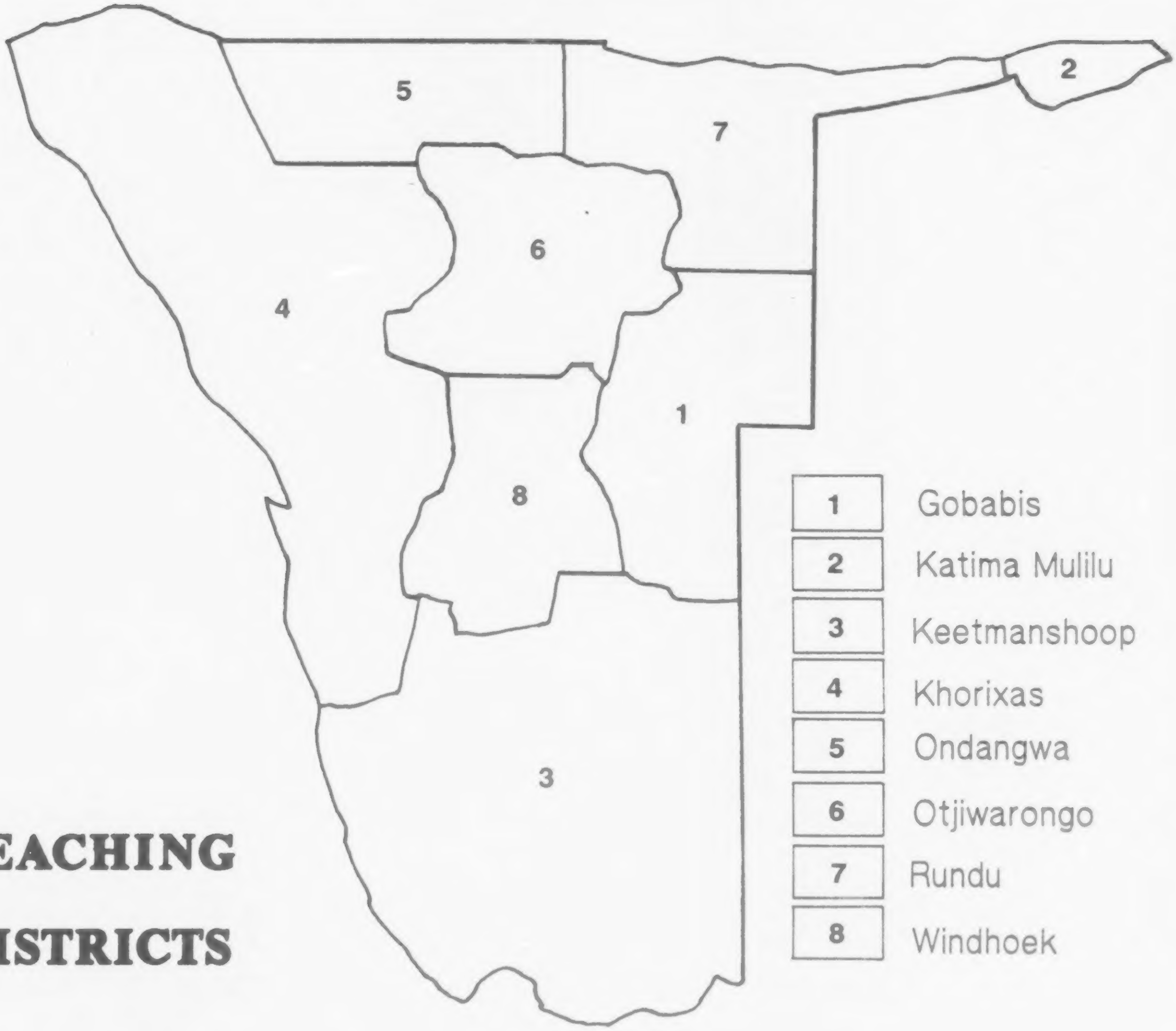
FIGURE 10 : NAMIBIA - TEACHERS TRAINING: STUDENTS ENROLLED ACCORDING TO THE TERMINATION OF THE COURSE.

FIGURE 11 : NAMIBIA - TEACHERS TRAINING: STUDENTS ENROLLED ACCORDING TO THE SPECIALIZATION OF THE COURSE.

FIGURE 12 : NAMIBIA - BUDGET: 1990 - 1991

FIGURE 1

NAMIBIA



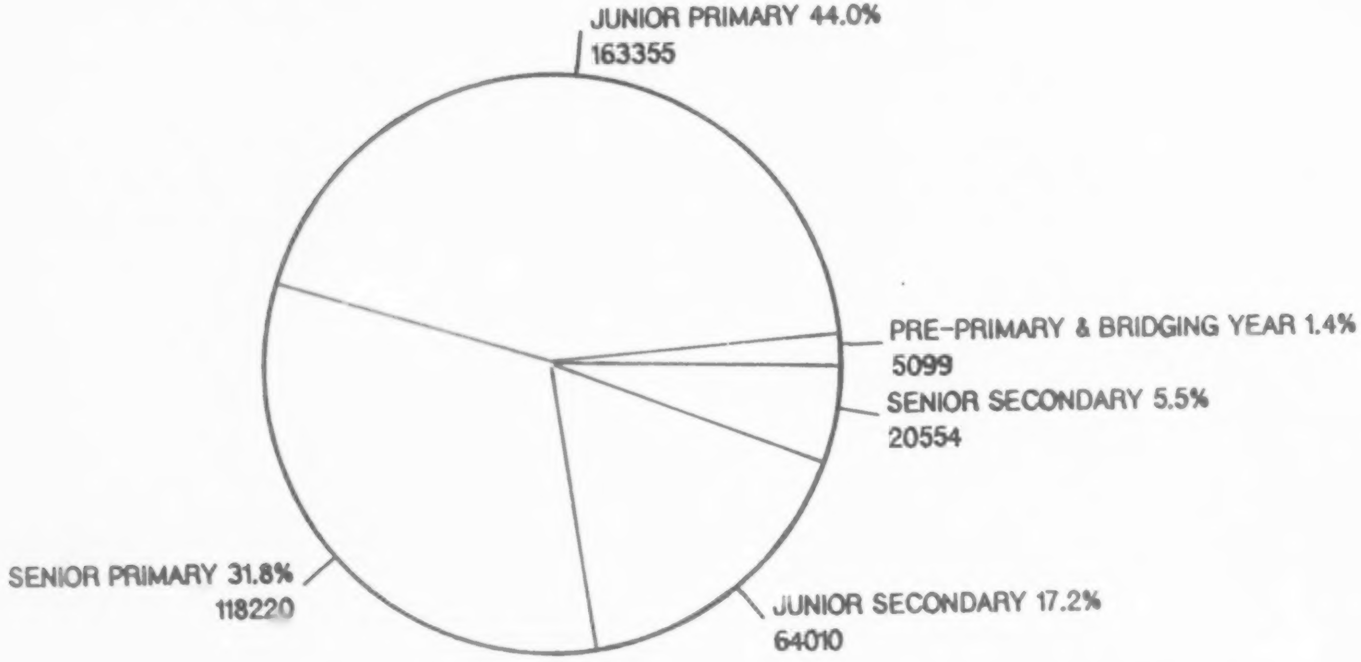
1	Gobabis
2	Katima Mulilu
3	Keetmanshoop
4	Khorixas
5	Ondangwa
6	Otjiwarongo
7	Rundu
8	Windhoek

TEACHING DISTRICTS

FIGURE: 2

NAMIBIA

NUMBERS OF PUPILS ACCORDING TO SCHOOL PHASE - 1989



TOTAL: 371 238

NAM 20

90

SOA

FIGURE: 3

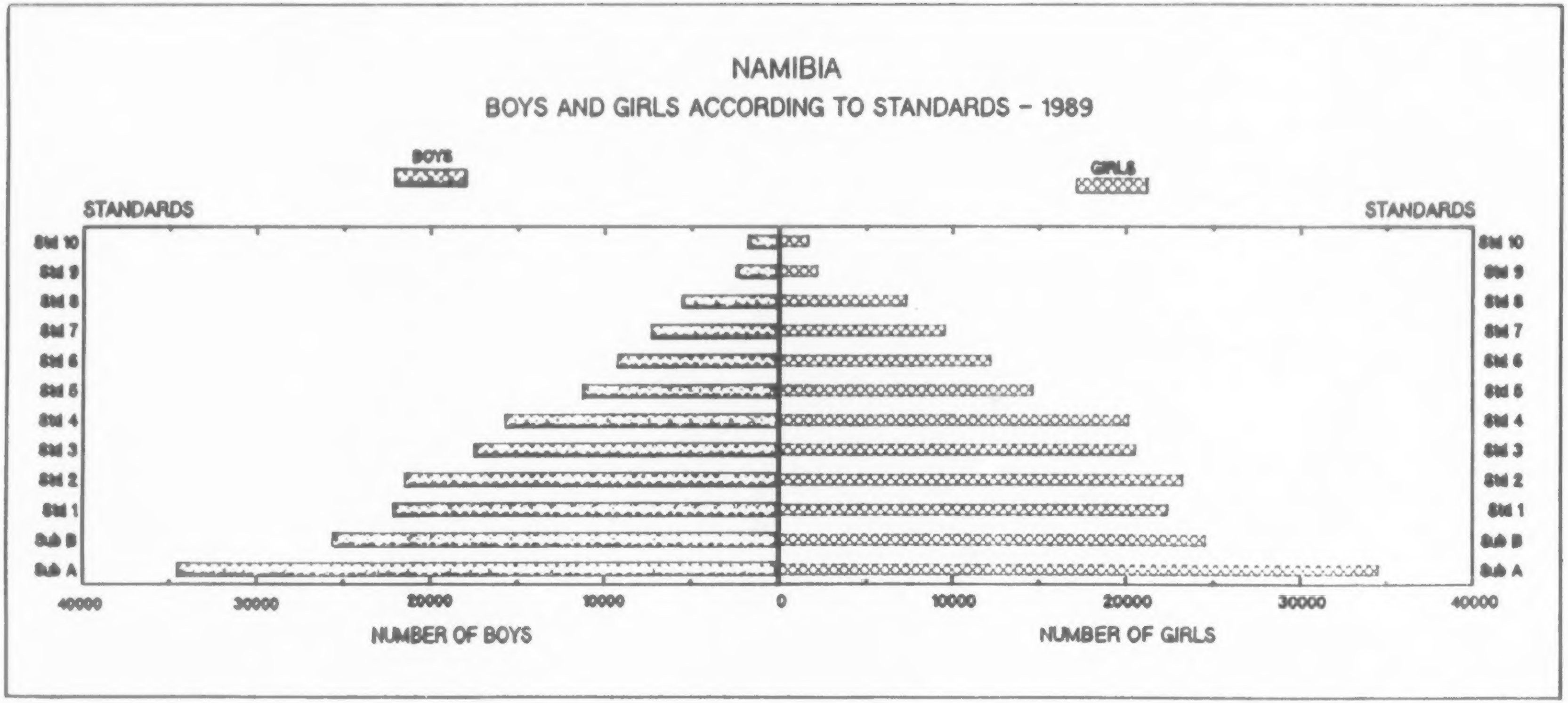
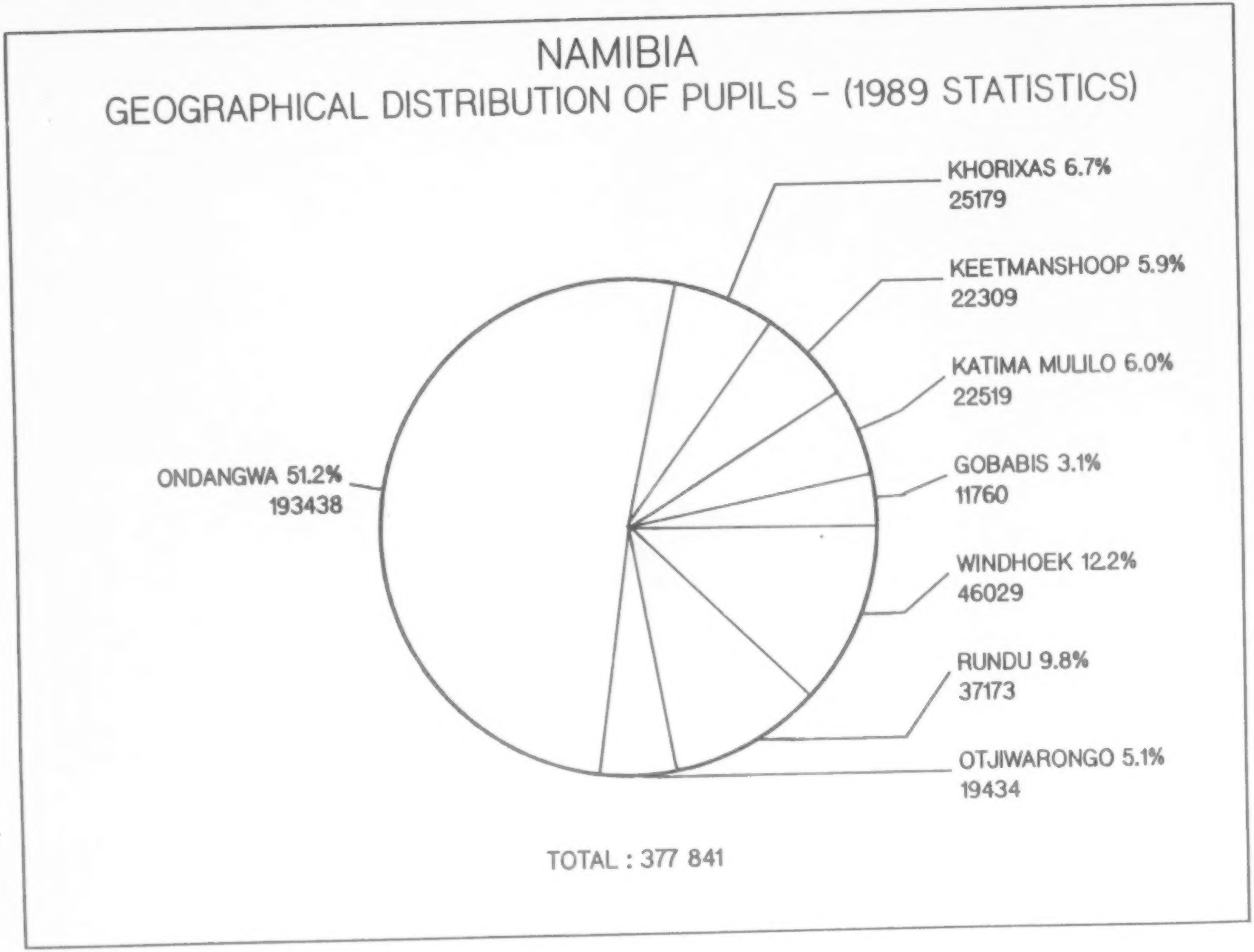

NAMIBIA
BOYS AND GIRLS ACCORDING TO STANDARDS - 1989
BOYS
GIRLS
STANDARDS
STANDARDS
Std 10
Std 9
Std 8
Std 7
Std 6
Std 5
Std 4
Std 3
Std 2
Std 1
Sub B
Sub A
40000
30000
20000
10000
0
10000
20000
30000
40000
NUMBER OF BOYS
NUMBER OF GIRLS

FIGURE: 4

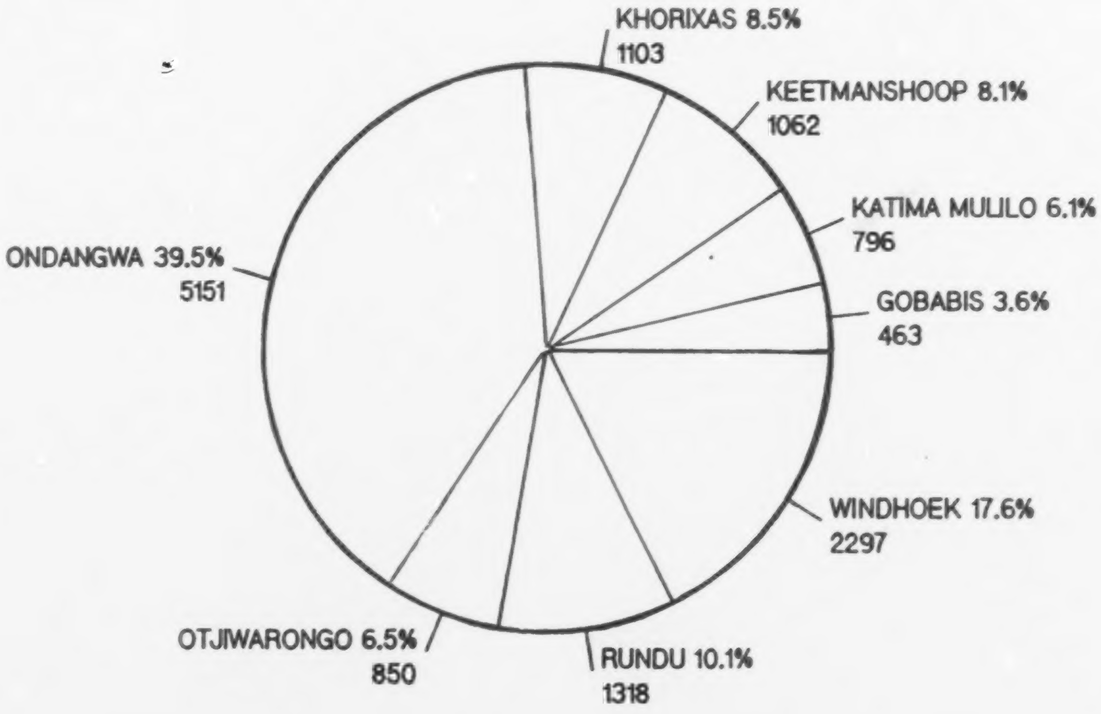


NAMIBIA
GEOGRAPHICAL DISTRIBUTION OF PUPILS - (1989 STATISTICS)

NAM 22

FIGURE: 5

NAMIBIA
GEOGRAPHICAL DISTRIBUTION OF TEACHERS - (1989 STATISTICS)



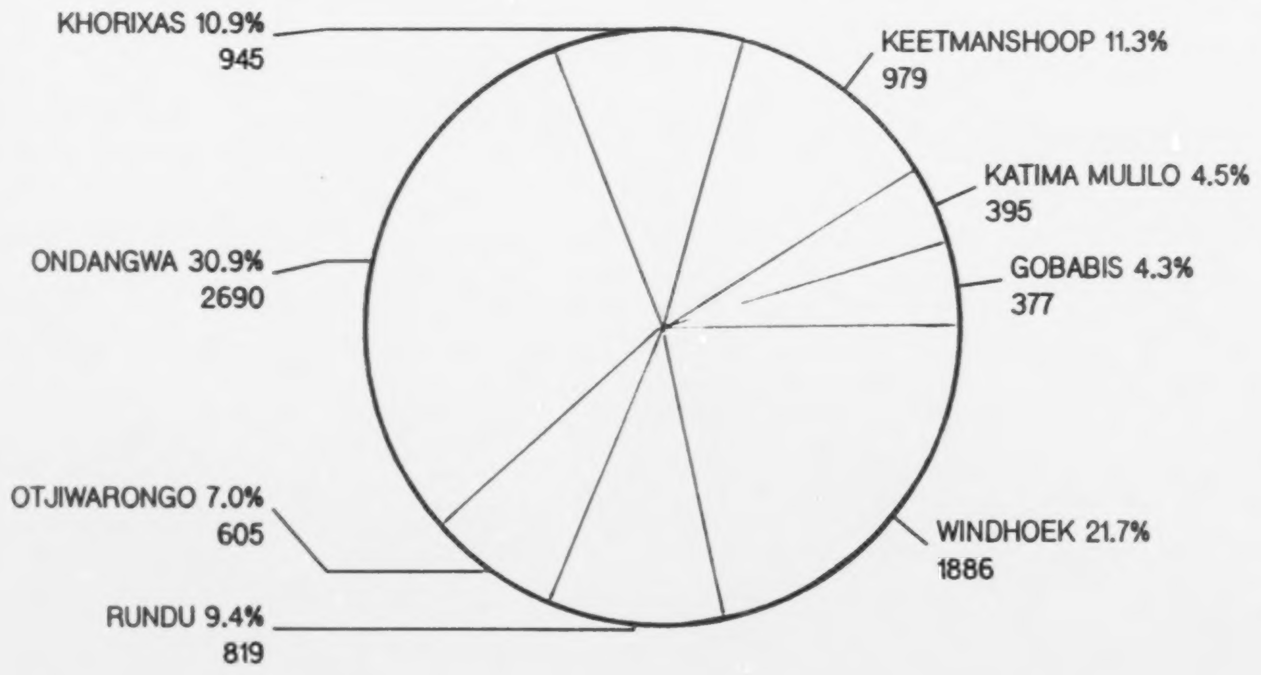
TOTAL : 13 040

NAM 23

FIGURE: 6

NAMIBIA

GEOGRAPHICAL DISTRIBUTION OF PERMANENT CLASS ROOMS
1989 STATISTICS)



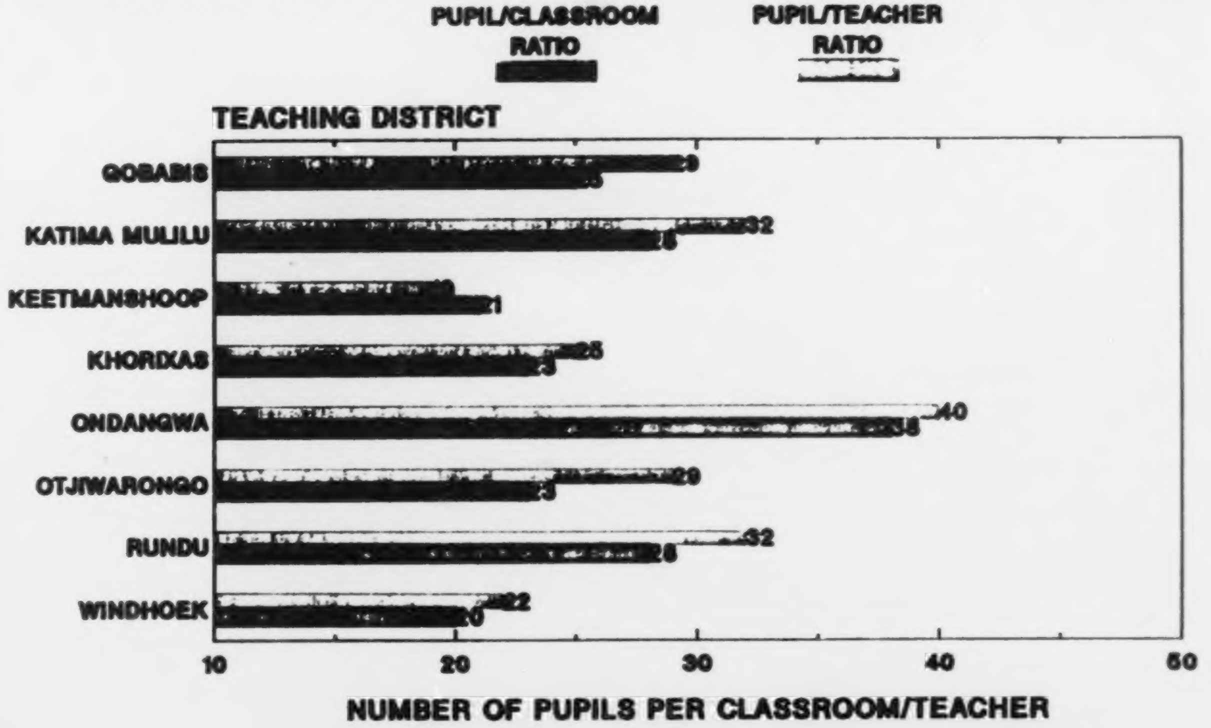
TOTAL : 8 696

NAM 24

FIGURE: 7

NAMIBIA

PUPIL/CLASSROOM RATIO AND PUPIL/TEACHER RATIO - (1989 STATISTICS)

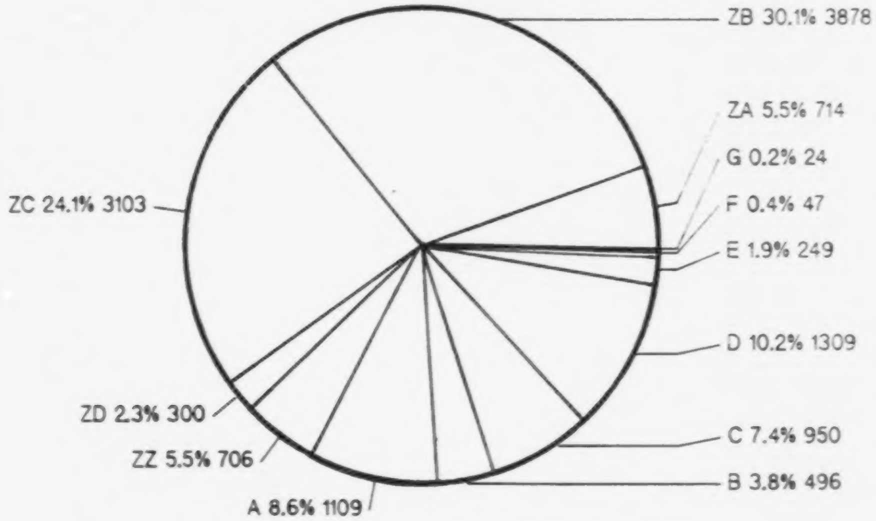


TOTAL: PUPIL/CLASSROOM RATIO = 31 PUPIL/TEACHER RATIO = 29

NAM 25

NAMIBIA

NUMBERS OF TEACHERS ACCORDING TO CATEGORIES - 1989



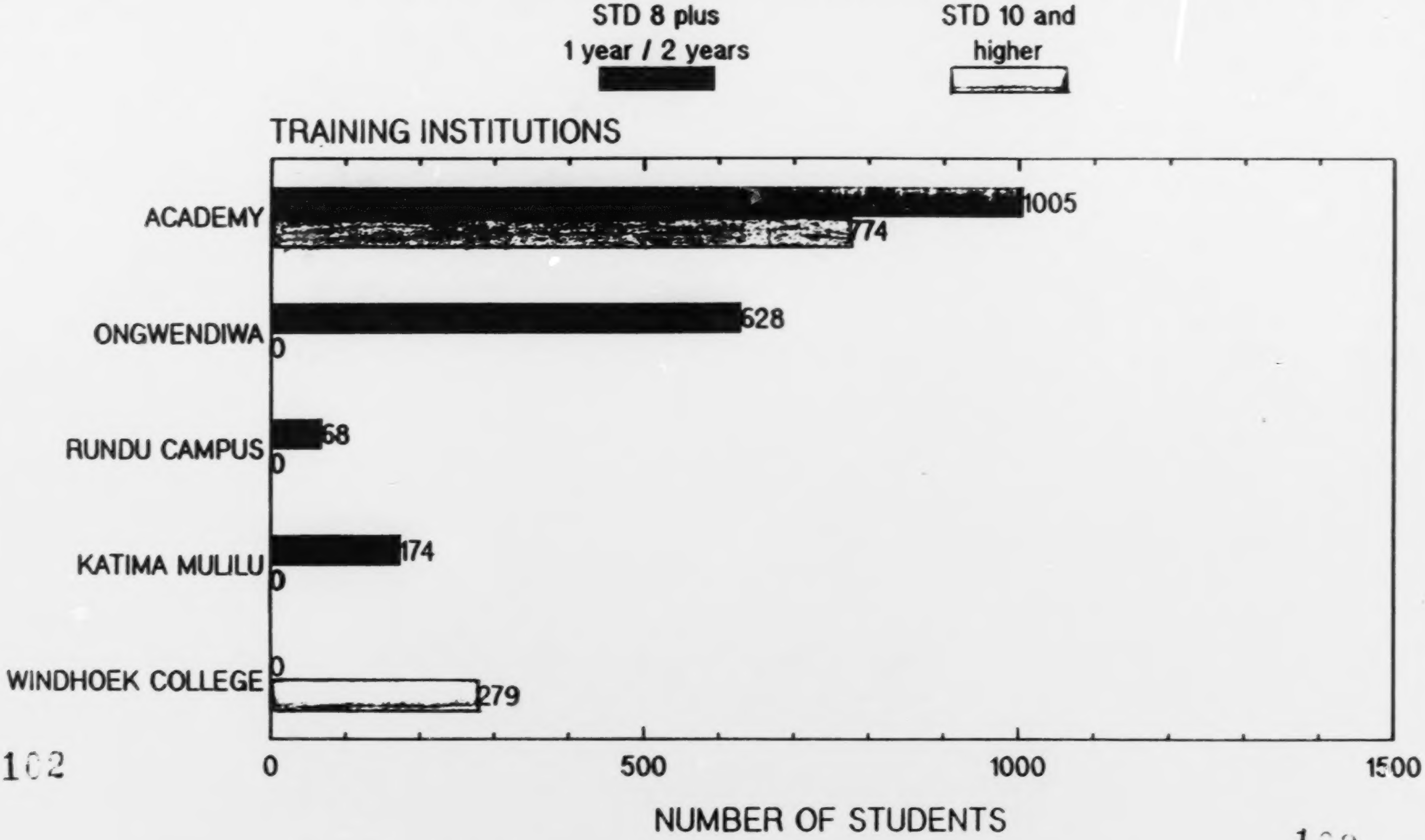
TOTAL : 12885

ZA : Std 7 or lower + no teacher-training
Zb : Std 7 or lower + teacher-training or only Std 8/9
ZC : Std 8/9 + teacher-training or only Std 10
ZD : Post level 2 to 5 + qualification lower than Std 10
ZZ : Std 10 + 2 or more years' pre-tertiary teacher-training
A : Std 10 + 1 year
B : Std 10 + 2 years
C : Std 10 + 3 years
D : Std 10 + 4 years
E : Std 10 + 5 years
F : Std 10 + 6 years
G : Std 10 + 7 years

FIGURE: 9

NAMIBIA – TEACHERS TRAINING

STUDENTS ENROLLED PER TRAINING CENTRE ACCORDING TO THE LEVEL OF THE COURSES

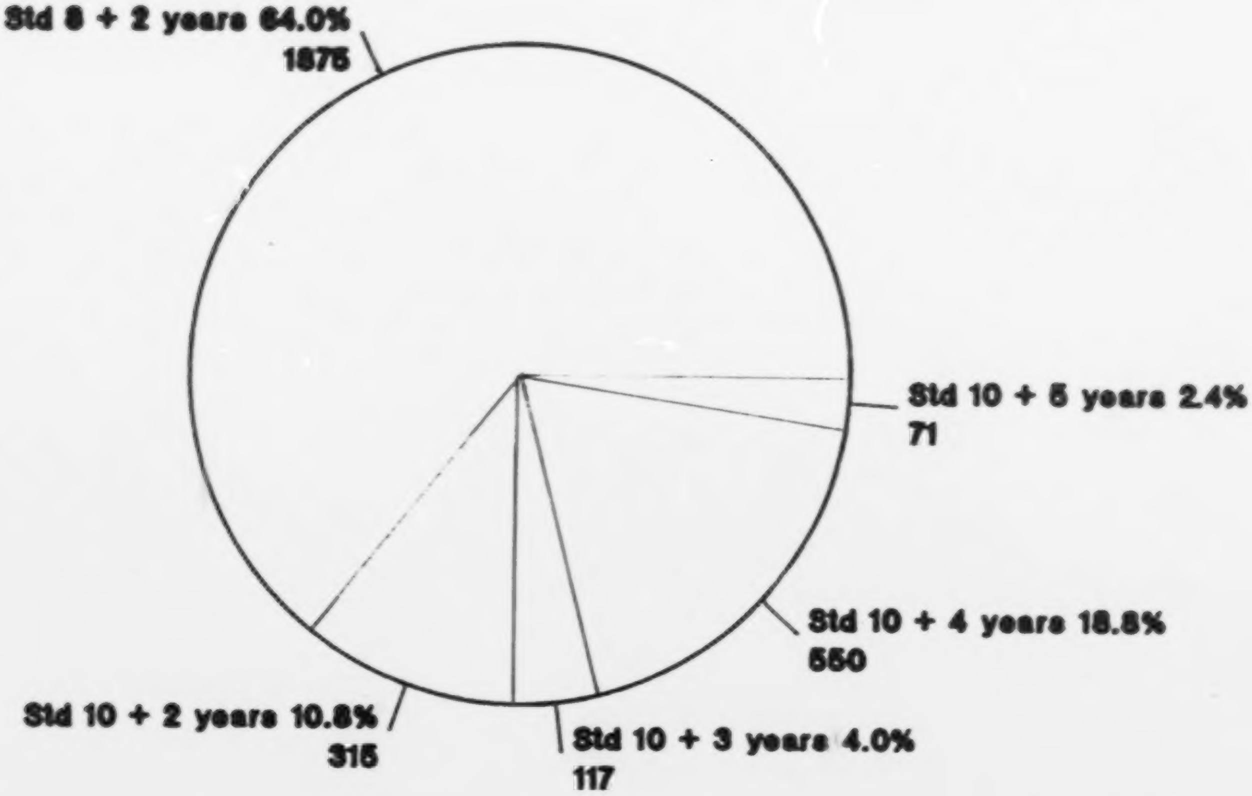


NAM 27

FIGURE: 10

NAMIBIA - TEACHERS TRAINING

STUDENTS ENROLLED ACCORDING TO THE TERMINATION LEVEL OF THE COURSE



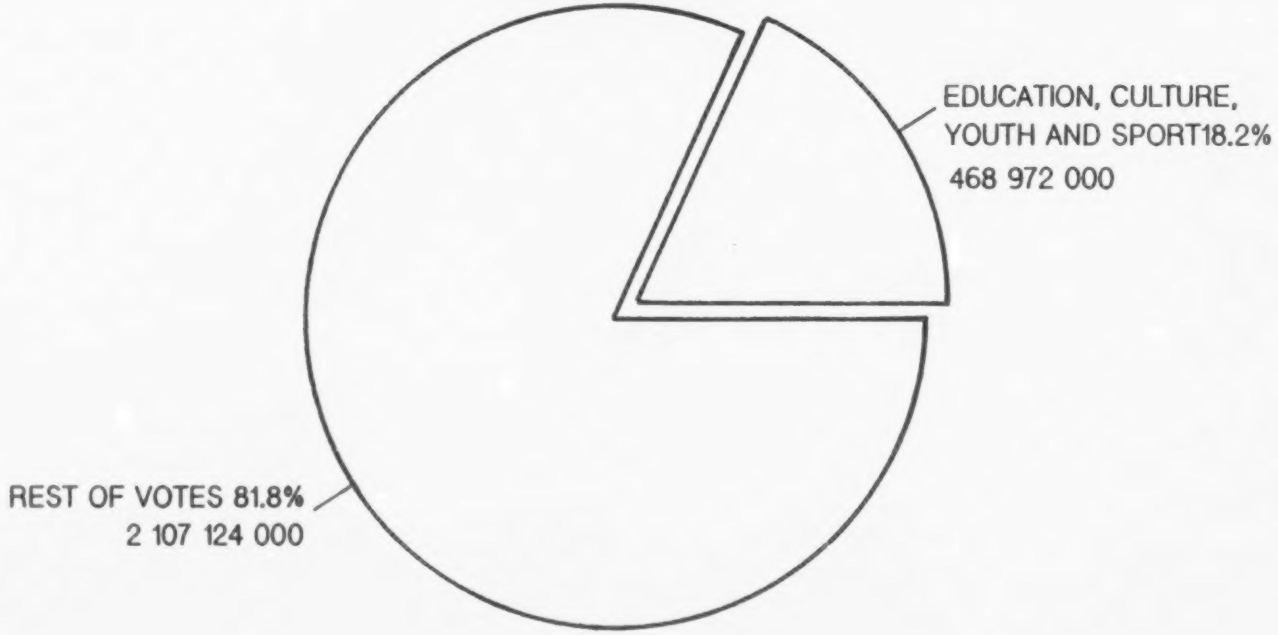
Total numer of students enrolled: 2928

NAM 28

FIGURE: 12

NAMIBIA

BUDGET : 1990-1991



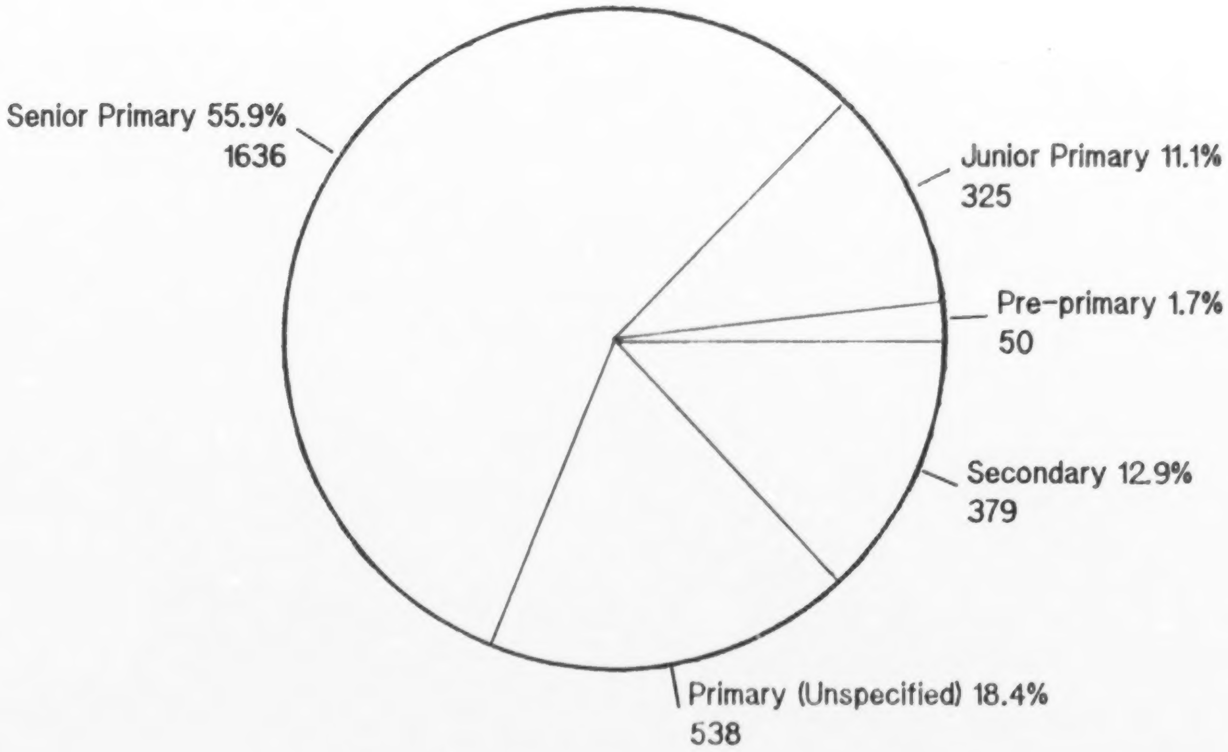
TOTAL : R2 576 096 000

NAM 29

NAMIBIA - TEACHERS TRAINING

STUDENTS ENROLLED ACCORDING TO THE SPECIALIZATION OF THE COURSE

NAM 30



Total number of students enrolled: 2928

PAKISTAN

TABLE OF CONTENT

S.No.	Title	Page
1.	INTRODUCTION	
2.	POLICIES AND STRATEGIES	1-3
3.	WAYS OF RAISING QUALITY	4-18
	- PHYSICAL FACILITIES	
	- CURRICULUM AND ASSESSMENT	
	- TRAINING AND PROFESSIONAL SUPPORT FOR TEACHER	
	- LEARNING MATERIALS	
	- MANAGEMENT AND SUPERVISION	
	- EDUCATION AND COMMUNITY	
	- NON-FORMAL EDUCATION	
4.	RESOURCES AND INTERNATIONAL COOPERATION	19-20
5.	PROBLEMS AND ISSUES	21
6.	ANNEXURES	
	- PRIMARY EDUCATION PROJECTS	ANNEXURE-I
	- PRIMARY EDUCATION SYSTEM IN PAKISTAN	ANNEXURE-II
7.	APPENDICES	
	- NUMBER OF INSTITUTIONS BY LEVEL OF SCHOOL,PROVINCE AND SEX FROM 1985-86 TO 1989-90	APPENDIX-I
	- NUMBER OF STUDENTS BY LEVEL OF SCHOOL, CLASS AND SEX FROM 1985-86 TO 1989-90 IN PAKISTAN.	APPENDIX-2
	- NUMBER OF TEACHERS BY LEVEL OF SCHOOL, PROVINCE & SEX FROM 1985-86 TO 1989-90.	APPENDIX-3
	- NUMBER, ENROLMENT AND TEACHERS OF MOSQUE SCHOOLS.	APPENDIX-4

- LITERACY RATIO OF PAKISTAN AND PROVINCES FOR 10 YEARS AND ABOVE ON THE BASIS OF 1981 CENSUS. APPENDIX-5
- ALLOCATION FOR PRIMARY EDUCATION APPENDIX-6
- NUMBER OF SCHOOLS, ENROLMENT AND TEACHERS AT MIDDLE AND SECONDARY LEVEL OF EDUCATION APPENDIX-7
- DIAGRAMATIC STRUCTURE OF EDUCATION SYSTEM IN PAKISTAN. APPENDIX-8

INTRODUCTION

Pakistan is one of the countries with very low levels of basic education and literacy rates. Concerted efforts in the past could not bear fruits due to many factors. Nevertheless, there are no two opinions about the significance of education in general and primary education in particular for national development and general uplift of the masses. It is in this context that government has assigned priority to this sub-sector of education. More allocations in terms of percentage of GNP will be allocated to education and a big chunk of this will be apportioned to primary/basic education. In addition to increase in allocation attempts are being made to improve the efficiency of the system through various essential components of the education system. In this paper, an attempt is made to describe briefly the efforts being made by government for expansion and improvement of primary education. A brief write up on the system of primary education is also included alongwith some statistical data for primary through secondary levels of Education.

POLICIES AND STRATEGIES

Basic Education has been the center of emphasis for successive Governments since 1947. A number of concerted efforts have been made to provide physical facilities to the school age children thereby extending access to majority of the masses. Since independence there has been more than ten times increase in number of primary schools and enrolment at this level. Nevertheless, the demographic pressure at the annual rate of 3.0% have kept the overall participation rate at about 51% of the children of relevant age group. It is not low access to education but high drop out rate which contributed to lessen the enrolment ratio. The geographical distribution of institutions is an added factor which thwart increase in enrolment. Hence any significant attempts aimed at qualitative improvement through better physical facilities, trained teachers, better instructiona materials and supervision have failed to achieve the desired results. Still a large proportion of children drop out before completion of five years of primary schooling; the school environment is not conducive to learning; there are large scale disparities between regions, rural and urban areas, male and female population, haves and have-nots both in terms of provision of educational facilities as well as quality of education.

Keeping all this in view, the Government has assigned high priority to education especially primary education. It is one of the top priorities in the national development programme of the present Government. A number of major projects are being launched in the field of primary and non-formal education so that literacy ratio is increased from the depressing 26.4% to at least 60-70% during the next five years.

Various strategies adopted by the Government for expansion and improvement of primary education include:

- to reduce disparities in provision of facilities between urban and rural areas and for male and female population;
- to improve efficiency of the system by providing more trained teachers, instructional material, improved supervisory system by providing learning coordinators;
- to improve quality by relating the curricula to the needs and environment of the children;
- to emphasize and provide for more neglected areas.

The programmes in the Seventh Five - Year Plan (1988-93) include:

- The Seventh Plan strategy emphasises provision of at least basic primary education to every boy and girl in the country. By 1992-93 almost every child of age 5 years and above will have access to a primary or mosque school. Special attention will be paid to increase the participation rate of girls, in the Seventh Plan. The separate entity of the preparatory class (kachi/nursery) will be recognised.
- There will be legislation for compulsory primary education upto class V for all localities where a school is available within a radius of 1.5 km.

- A strong motivational campaign will be launched to convince parents to send their children to school.
- The Seventh Plan aims at improving the physical as well as human resource infrastructure by providing buildings to schelterless schools and by adding class rooms in over-crowded schools.
- Detailed school mapping will be undertaken to identify the localities where educational facilities do not exist.
- A primary school will be established for every settlement of 500 persons or more. On the basis of the total number of children in the settlement, if separate schools for boys and girls are not feasible, then a girls school will be opened. Boys upto the age of 8 years will be allowed to join a girls school.
- In addition to existing trained teachers intermediates and graduates will be recruited as primary teachers. Primary school teachers will be given salaries to match their qualifications.
- The maximum age limit for recruitment will be abolished for local candidates. They will also be given preference over other candidates.
- The possibility of increasing the age of entry to class I by one year will be examined.
- Textbooks for primary schools will be improved. Integrated textbooks will be used upto class-III. The quality of textbook material will be improved.
- The Seventh Plan will provide simple and locally manufactured furniture in all new primary schools.

WAYS OF RAISING QUALITY

Quality is a complex entity. It is spread over the whole education system. It covers physical facilities, curriculum and assessment, teaching-learning process, training and professional support for teachers, learning materials, management and supervision and community support. All these aspects have to be provided for if quality is the objective. These aspects interact and in turn influence the level of achievement of quality. Following is a brief description of all these interacting components of the system with specific reference to primary education, education of girls and non-formal education.

PHYSICAL FACILITIES:

In pursuance of the various policy directions efforts were made to open more primary schools in the country especially in rural areas. This increase during the last decade is about 8.7% annually. The total number of primary schools in the country at present is 118607; 91274 for boys and 27333 for girls. This include about 20,000 mosque schools which impart education to both boys and girls up to class III. These schools provide education facilities to about 51% of 5-9 age group population only. This means more facilities i.e., more schools need to be opened if we intend to universalize primary education and provide access to school to each and every child of the country. This is a component of education system which cannot be provided for with the minimum financial allocations available to the education sector. There is need to find out alternative approaches so that more and equitable facilities are made available to the children of the nation. The efforts include provision of more schools within 1.5 kilomete each settlement. Simple and locally available furniture will be provided to primary schools in a phased manner among others.

In addition, some projects are being implemented in collaboration with foreign aid-giving agencies such as World Bank, Asian Development Bank, USAID, CIDA and NORAD. Under World Bank funded three projects; one for NWFP, Sindh and Balochistan, second for Punjab and third for Sindh, more rooms will be added to the existing one-, two-, three- and four-room schools according to the local requirements, and to increase the capacity of such schools. Under ADB sponsored Girls Primary Education Project, 5-room schools (Community Model Schools) are being provided in about 800 rural Union Councils throughout the four provinces of the country on experimental basis with the objective to provide minimum basic facilities in order to achieve more participation, increased retention and low drop out of primary school age female children. USAID Project for

Balochistan and NWFP has more or less similar targets i.e., provision of more schools in rural areas and especially for girls, so that more and better facilities are offered to the female population to attract them towards schools. In this way, it is hoped that majority of primary schools will be provided with minimum basic facilities including furniture, floor mats and boundary walls in girls primary schools, etc.

CURRICULUM AND ASSESSMENT:

Education imparted at any level has to be in line with the national policy guidelines which are translated in the form of curriculum for children of a specific age group. Curriculum is the basis for what to teach, how to teach and upto what level to teach. In line with the prevalent trends, knowledge explosion and policy guidelines, curriculum needs to be revised.

In Pakistan, National Bureau of Curriculum and Textbooks (NBCT) undertook a number of exercises to revise and update primary school curriculum. Latest attempt is the experiment of Integrated Primary Curriculum. The thinking behind this experiment according to the priorities of the Government in the field of primary education was to bring all children of primary age group into school and to retain them in the stream till the end of primary school cycle. The question of quality was grappled in the same context. Realising that the increased work load is repulsive for the children, the NBCT developed the project on development of integrated curriculum for classes I-III.

Keeping in view the broad guidelines the following objectives were worked out:

i) To train the child in the basic linguistic skills of listening, speaking, writing;

ii) To inculcate in the children a sense of curiosity and an urge for discovery and observation. Also to encourage their creative impulses and to inculcate scientific thinking in them.

Analysing the objectives of different subjects included in the primary stage curricula, it was found that most of the teaching objectives of Urdu language, Islamiyat, Social Studies and Science were common at this level of education. It was, therefore, assumed that common means could be adopted to realize common objectives of the subject. Thus a project was designed to integrate the content of the four identified subjects and to present it to the children through an integrated plan of instruction.

The procedure adopted for the development of material and implementation is explained stepwise as under:

1) The textual materials were developed by a group of working teacher;
2) A teacher guide for each book was prepared which contains general instructions, methodology, lesson

units, instruments for evaluation of students' achievement, views of the teachers, etc;

3) A booklet for the supervisors, heads of the institutions and the parents was also prepared;
4) A short orientation course was held for the teachers teaching the concerned classes;
5) An overall survey of the schools, where integrated material was being tried was conducted in order to evaluate results of the teaching and obtain views of the teachers and other concerned;
6) In the light of the feedback received from various quarters, the curriculum and the instructional material was revised and improved;

The project was adopted by all the provinces about three years ago on experimental basis. The textbooks were revised according to the local needs and requirements. Now, this integrated curriculum and textbooks have been taken up in the regular set up and in all provinces and federal area except Punjab and has been implemented for Classes I&II. In Punjab, a separa book for Science will be added to the integrated curriculum/text.

In addition, the foreign aided projects especially World Bank "Primary Education Expansion and Development Project (PEDEP)" has experimented with specially designed achievement tests in select subjects such as languages (Urdu and regional languages), Mathematics and Science for Classes IV and V. It is hope that these achievement tests will help evaluate the progress and achievement of the pupils on objective and scientific basis. It will also contribute to more profound learning by the pupils. Under the same project a research is being conducted to develop criteria for minimum acceptable performance in languages, Mathematics and Science for classes III-V. This will further help in assessment of pupil's achievement at primary level of education.

TRAINING AND PROFESSIONAL SUPPORT FOR TEACHERS:

Teaching-learning process is the king pin on the road to quality education. Effectiveness of this process hinges on the quality and competence of teachers. Many efforts have been made for proper education and training of teachers. Education as a subject has been introduced in the curriculum at matriculation, intermediate and degree levels of education. The prospective teachers offer this subject at successive levels of their education starting from matriculation. Special crash programmes are organized by the Federal Ministry of Education for master trainers who in turn organize similar training programmes for working school teachers at provincial levels.

One of the major components of various foreign-aided projects is the training and retraining of grass root teachers in modern and better teaching techniques. The World Bank PEDEP Project has provided special inputs for three level training. A-level for master trainers at federal level, B-level for learning coordinators and supervisors who in turn organize C-level training of grass root working school teachers. This mechanism of teacher enrichment in new teaching techniques such as modular approach has proved very effective. This has manifested its effectiveness in the form of better pupil achievements.

The USAID project is also emphasizing this aspect and have provided substantial funds for this purpose. In this project pay scales of the teachers will be related to their qualifications so that better educated trained teachers are attracted to primary schools. ADB's Girls Primary Education Project (GPEP) considering teacher as the pivot of teaching-learning process is providing 5 teachers to each of the 800 Community Model Schools at Union Council level. Added to that pre-service education facilities to rural female matriculates will be provided through Allama Iqbal Open University (AIOU). This would open doors of professional education to the rural female who at present cannot avail of the existing facilities in the Colleges of Elementary Education. In addition, in-service courses and training programmes will be offered both through Provincial Education Extension Centers and through AIOU short-term training programmes specially designed by the AIOU for female teachers of the rural areas teaching in the Community Model Schools. Under this project efforts will also be made to evaluate and redesign the curriculum for primary school teachers at PTC (Primary Teaching Certificate) level.

LEARNING MATERIALS:

Instructional material/learning material at primary level include textbooks, supplementary reading material and

A.V.aids. Textbooks are prescribed by the NBCT in collaboration with the Provincial Textbook Boards. All the books except in the subject of Social Studies are the same with some provincial modifications throughout the country. A National Teaching Kit has also been provided to almost all primary schools which include materials and experiments relating to Science, Mathematics, Language (Urdu)(to be/being adapted for regional languages), and Social Studies. This is a best alternative in place of provision c laboratory facility and other instructional aids to primary schools which cannot be done due to resource constraint. It's use in the schools has been ensured through the aegis of Learning Coordinator (LC) - the professional supervisor at primary level of education. The LCs are trained in the use of and training for teaching kit material. They use this kit while demonstrating lessons in the actual class room situation on their visits to schools.

In the World Bank PEDEP, an additional instructional material both for teachers and students has been developed. This is named Learning Modules. More than 150 modules on various topics in Science, Languages (Urdu, Sindhi, Pushto), Mathematics and Social Studies have been developed and are being used in the schools in three provinces of the country, namely NWFP, Sindh and Balochistan. This material has received wide spread acceptance and will also be developed under similar project for the province of Punjab. The forthcoming ADB GPEP also plans to update these modules for further improvement and use in the primary schools especially for girls in rural areas. An updated National Teaching Kit including items for teaching of integrated primary school curriculum will also be provided under this project to about 800 Community Model Schools.

MANAGEMENT AND SUPERVISION:

As already mentioned, there are about 0.12 million primary school including Mosque Schools throughout the country. Management and supervision of such a large number of institutions their staff and provision of physical facilities is a tough and difficult job. Because of unmanageability, separate set ups for primary education have been/are being established in all the four provinces. In Punjab, a separate Additional Directorate of Public Instructions has been established with separate managerial and supervisory staff to look after primary education throughout the province. In Sindh, a separate set up under the control of Additional Education Secretary in the Education Department of Sindh has been set up with independent Director of primary education at Provincial level. Separate staff has also been appointed at divisional, district and sub-divisional levels to look after male and female primary schools in the province. In the provinces of NWFP and Baluchistan, separate Directorates with sufficient supporting staff at various levels are being established. This is a step towards decentralization of managemen and planning of primary education which in turn would result in better quality output at this level.

For professional supervision of primary schools, a special cadre of Learning Coordinators had been experimented with in one of the World Bank funded projects in primary education. These Learning Coordinators (LC) are responsible only for academic supervision and professional guidance of grass root teachers. The LCs visit schools more frequently i.e. 3-5 schools per day and provide professional advise to the teachers for teaching various concepts to the students. They also help solve various difficulties in teaching-learning process being encountered by the teachers. The LCs are provided transport facility to make them mobile. Transport facility is also provided to female LCs for supervision of project schools. Due to effectiveness of this system of supervision, LCs are being appointed in almost all provinces of the country on regular basis. The ADBsGPEP has also provided inputs for training of LCs supervising girls primary schools in rural areas. USAID is also providing similar inputs in NWFP and Balochistan.

EDUCATION AND COMMUNITY:

Role of community in the education of the children cannot be over emphasized. But unfortunately, there is very little involvement of community in the education system at large and even at local level. The only way of community participation is the contribution of land for school by the community in rural areas. That is also non existent in urban areas. Teacher-parent Associations are very rare even in urban areas not to speak of rural areas. Anyhow, attempts are being made to involve community by way of their representations on various committees and conferences being organized by the Government. In some of the provinces, Local Bodies and Union Councils are being involved in the planning and opening of primary schools in rural areas.

NON-FORMAL EDUCATION

For any country with very low base of primary education, it is desireable to approach the problem of access of basic education to masses through various alternatives other than the formal system of education. Hence, Government of Pakistan has launched a number of Projects over the period of time through non-formal system of education. Some of these projects have met with success and have become regular feature of the education system. Whereas, some of the projects could not achieve the objectives and targets and hence had to be discontinued. Brief description of these projects highlighting causes of success and failures is as follows:-

READ Project

The Ministry of Education, in collaboration with UNESCO, launched in 1977 an Experimental Pilot Project Integrating Education and Rural Development (EPPIERD). This EPPIERD had the following objectives:-

i) To develop and test new models of primary education.

ii) Establishment of improved educational services for primary school learners and others who need basic pre-vocational education and/or training.

iii) Develop and test new skill oriented programmes for children, youths and adults in different fields i.e. literacy, general education, civics, crop and animal husbandry, agro-technical subjects, arts and crafts, health, population education etc.

iv) Develop new communication and learning techniques including Radio, Community Audio Media, Education by Correspondence etc.

v) Assist in training or re-training of educational personnel.

The project established 25 women education centres, 10-Mosque Schools, one Mohallah School in rural areas of Islamabad district during October, 1977 to February 1978. In the light of the evaluation of EPPIERD during October, 1980, the project was re-organized under the name "Rural Education and Development" (READ) Project.

Keeping in view the success of this project READ has become a regular feature of the Federal Ministry of Education for spread of Literacy in federally administered areas around Islamabad.

Village Workshop

It was aimed to provide skill training to village youth and untrained manpower. 20 village workshops for wood work, masonary and metal work were established. To manage the workshop and train rural apprentices, a local skilled (craftsman) was engaged at a fixed salary of Rs.500/- per month. The workshops were expected to generate funds from the sale of their products.

Women Education Centres.

Its purpose was to provide training to out of school girls and un-employed rural women in the income generating skills like sewing, knitting, embroidery, poultry farming etc. A locally available qualified and experienced female teacher was appointed at the fixed salary of Rs.300/- per month. The centres were provided with equipment i.e. sewing machines, knitting machines, etc.

Integrated Functional Education Project.

This experimental project was implemented by Allama Iqbal Open University in 1982-83. The objective of the project was to impart functional literacy to males and females of age group 15 and above. The Project had three components as functional education, functional literacy and skill training. Asia Foundation also contributed funds for the cost of technical assistance etc. The salaries of the staff were given by the University. The curriculum for functional education included motivational and instructural material for functional literacy.

The Adult Functional Literacy (A.F.L)

In August 1973 the E.T.V. Division prepared a proposal for making 24,000 adults, including an equal number of men and women, functionally literate in six months. This was to be achieved through a course of 156 Telelessons, followed up by A.F.L. Teachers, at 200 community viewing centres (CVCs) in the Punjab, each aiming at enrolling 60 men and 60 women for separate sessions in the evenings and afternoons. At first it was contemplated that the on-the-ground arrangement, would be made by the Peoples Works Programme, but then the idea was given up because of changes in the Directorate P.T.V. itself had therefore to under-take most of this task with the help of Adult Basic Education Society (ABES) Gujranwala, (UNICEF provided $ 220,000 to cover a major share of the cost). Later the Integrated Rural Development Programme (IRDP) undertook to operate some 50 CVCs and the PWP Six CVCs (in Multan).

All these programmes registered success in motivating target populations for education and hence would be replicated in other areas of the country in phased manner.

Nai Roshni Schools

Another aspect of the literacy compaign in Pakistan was the Nai Roshni Schools, meant for primary school drop-outs and children who never enrolled in primary schools.

Nai Roshni Schools were a completely non-formal system intended to enable 10 to 14 year old children to complete their education upto grade-5. The duration of schooling was two years, completion of which was expected to enable a child to join class 6 in the formal system.

Teaching was arranged in formal school buildings in the afternoon by specially trained teachers employed for the whole day. Besides teaching special task of these teachers was to motivate the target population, public relationing and keeping records of students. The programme was planned for 1986-90 and the expected number was to educate 1,650,000 students in 22,000 Nai Roshni Schools.

Iqra Pilot Project

The awfully low literacy rate in Pakistan has been a major handicap in developing the country's resources and improving living standards of the people. The root cause for slow growth has been illiteracy. Inadequacies in the formal system of primary education and achievement in the Universalisation of Primary Education (UPE) have been very low. Narrow literacy base, lack of incentives for the target population including illiterates and voluntary teachers have always eroded programmes of adult and non-formal education.

Iqra project was, therefore, introduced by the Literacy and Mass Education Commission (LAMEC) ensuring economic incentives to voluntary teachers for the time and efforts put-in to make a person literate. Educated persons, ex-servicemen or persons already engaged in some economic activity were encouraged to utilise their free time and knowledge productively. The project aimed at covering 50,000 people in one year. The plan was pre-dominantly result-oriented with handsome reward to voluntary teacher of Rs.1000.00 per neo-literate.

The project office in LAMEC at Islamabad had the overall operational control for registration and examination of volunteer illiterates. Elected institutions like union councils were fully involved for the convenience of participants in the scheme.

The two projects i.e. Iqra and Nai Roshni could not work successfully because of mismanagement, inefficiency, lack of coordination which caused financial drain on the part of the Government.

National Education and Training Commission :

The Literacy And Mass Education Commission (LAMEC) was reconstituted as the National Education And Training Commission (NETCOM) in December 1989. NETCOM evolved following programmes/projects for eradicating illiteracy after its reconstitution.

a) Training of Un-employed Education Youth

This project has been launched in May, 1990. The project aims to train 20,000 educated youth in the field of Teacher Training and 40,000 in the field of technical/skill training. The training will be given through Allama Iqbal Open University and National Training Bureau under the Manpower Division. The trainees are to be given stipend during their training period. The trainees of teacher's education (PTC, CT and B.Ed) are required to make 25 illiterate persons literate during their training period. The duration of the project is 18 months.

b) Use of Quraanic Literacy for Promotion of Female Literacy

(Establishment of 10,000 Female Literacy Centres)

This scheme is first of its kind for those females who have learnt the Quraanic Literacy but do not know the reading and writing skills. Project aims to convert Quraani literate females into general literates. Under this project, 10,000 female literacy centres shall be established throughout the country. The project is to run at 500 selected rural/urban localities be in the 20 districts of the country. The project has not been approved as yet.

The non formal education set up is not much developed in the country. It needs to be revigorated.

RESOURCES AND INTERNATIONAL COOPERATION

The present Government is assigning due importance to the education sector since it is a basic source of human resource development. Primary Education enjoys further significance and about 41.0% of the total education budget was allocated to the primary education during the financial year 1989-90 to meet both development and recurring expenditure. This is 15.6% more than the allocation for previous year. Government is committed to allocate more funds to primary sector of education so that it is made accessible to majority of the masses.

In addition, foreign assistance is also being sought to support public sector efforts for expansion and improvement of primary education. A number of foreign-aided projects have been launched in collaboration with World Bank, Asian Development Bank, USAID, CIDA and NORAD. All these projects aim at expansion and improvement of primary education in general and for rural areas and female masses of our population, in particular. Under these projects, in addition to the provision of basic facilities such as more places/schools for children, instructional material, etc. new pattern of additional supervisory staff and teaching staff are being experimented with. The appointment of Learning Coordinators as additional supervisory tier has proved fruitful in improvement of teaching-learning process, better achievement of pupils and their retention in schools and in reducing teacher absenteeism in rural areas. Likewise, additional teaching staff will be provided to rural female primary schools under ADB Girls Primary Education Project. This additional input will, it is hoped, help raise quality of education on one hand and improved retention rate and decrease drop out rate, on the other.

Under USAID Project different mixes of incentives for the teachers and pupils will be adopted. Teachers will be provided monetory incentives in the form of difficult area allowance and salary in accordance with their qualifications. The pupils will be provided scholarship for further education upto matriculation and PTC (Primary Teaching Certificate) levels. With the provision of such inputs it is deemed possible to have more expansion and better standards at primary level of education.

A brief description of all foreign-aided projects is at Annexure-I.

PROBLEMS AND ISSUES

Quality has many dimensions. It has its ramifications throughout the education system. Improvement in one component of the system cannot be considered as improvement in the whole system. Rather, ideally speaking, all facets of the education system have to be attacked if the objective is an overall quality improvement.

Anyhow, quantity preceeds quality, First of all the emphasis needs to be on provision of minimum basic facilities for each and every child of the nation. This is a formidable job but since Government is committed to spread education to the masses there will be more provision for education and especially for primary education. The percentage of GNP for education would gradually be increased to 4.0 keeping in view the present trend, it is estimated that about Rs.1.0 billion will be available for development expenditure of primary education annually. This alongwith foreign assistance would be sufficient to meet the development expenditure required for the next 5-10 years. The problem is one of attracting children to school and second of retaining these children in schools especially in rural areas. These are the issues where thinking have to be concentrated on improving efficiency of the system. For this purpose quantity and quality of teaching and managerial/supervisory staff have to be increased. Improved and better quality instructional material is to be provided and examination system revitalized. All these aspects are being looked after, as mentioned earlier, by the Government not only through its own sources but also with the help of foreign assistance. Even then there is need to rethink about other alternatives so that objectives of quality improvement become achieveable.

PRIMARY EDUCATION PROJECTS

Annex-I

ADB GIRLS PRIMARY EDUCATION PROJECT

Brief Description : This is a two phased project for qualitative and quantitative development of primary education for girls in the rural areas of Pakistan. This project is assisted by Assian Development Bank.

Area Coverd : All the four Provinces of Pakistan

Total Cost : US $ 80.515 million

Duration : Five years (1989-94)

Objectives : Increased participation rate of girls in primary education through providing better physical and instructional facilities. A compaign to motivate parents to send their daughters to schools will also be launched.

Provide improved quality of Education through trained female teachers and quality instructions.

Increase ratention rate through providing, better educational environment and effective teaching methods.

Upgrade management and supervision of the primary education through staff development at various levels.

Targets

Construction of 800, five-room Community Model Schools.

Provision of of five teachers in each CMS.

Recruitment of 800 Heamistresses and 4,000 teachers.

Teacher Training for Teachers of CMS and learning Corrdinators.

Brief Implementation: The PC-I is under process with the P&D Division for approval. Provincial implementation units have been established. An orientation workshop will be organized for FCU and PIUs immediately after the approval of PC-I

SIND PRIMARY EDUCATION DEVELOPMENT PROGRAMME

Brief Description : This programme is addressed to further Development Primary Education in Sind. It is one of a series of interventions made in the primary Education sub sector with the help of World Bank of which the first experimental programme (1978-84) has been completed and the II & III Primary Education Projects are on going.

Area Coverd : Province of Sind (8 Districts)

Total Cost : Rs.4273.89 million

Duration : 5 years (1990-94)

Objectives : Improve participation particularly of Girls in Primary Education.

Improved delivery of Primary Education

Improved student achievement.

Targets : The project covers 8 District (Nawab Shah,Dadu, Sakhar, Khairpur, Sanghar, Tharparkar, Jaccababad, and Thatta) and includes 81,00 primary school(67,00 for boys and 14,00 for Girls of these Districts).

Brief Implementation: Sind Education Department was directed to submit revised umbrella PC-I in the light of the pre CDWP meetings observations.

II-PRIMARY EDUCATION PROJECT:

Brief Description: II PEP was launched with the assistance of World Bank in the 3 participating provinces of Sind, NWFP and Baluchistan w.e.f 1-10-1985. This project is for improvement of primary education especially in rural areas.

Area Coverd: Provinces of Sind, NWFP and Baluchistan (19 selected Districts)

Total Cost: Rs.1168.525 million

Duration 5 years (1985-86 - 90-91)

Objectives;
1. Increase enrolment
2. Improve quality
3. Reduce cost
4. Reduce Dropouts

Targets:
1) Construction of 6000 classrooms
2) Development of 276 learning modules
3) Provision of furniture for 1400 schools.

Brief Implementation: Except civil works, all the activities of the project are going on successfully.

III PRIMARY EDUCATION PROJECT.

Brief Description : This is a project sponsored by IDA/EC/CIDA for expansion and improvement of primary education in the province.

Area Coverd : All the 30 Districts of the Punjab.

Total Cost : Rs.4365.64 million

Duration : Six year (1988-93)

Objectives : Develop and strengthen institutional capacity to plan, manage and implement the investment programme.

Support the Development and instituionalisation of policy reforms

Assist in the introduction of innovative components in the programme.

Targets : Participation Rate 53%, Literacy Rate 26.2%, Dropout Rate 50%, Total Enrolement 3.79 Million, Shelterless Schools 5200, New Schools 5100, Existing Schools 249, Units in GCETS 0042.

Furniture 10400 rooms, Teachers 10302, Learning coordinator 1578, Admn. Staff 65, Teachers Training 17500 (Through AIOU)

Brief Implementation: The pace of implemenation is very slow. Any how the project implementation unit is strengthened & it is hoped that the targets will be achieved during the specific period.

PRIMARY EDUCATION DEVELOPMENT AND EXPANSION PROJECT IN AZAD JAMMU AND KASHMIR.

Brief Description: This is a project sponsored by OPEC

Area Coverd: All the five Districts of AJK

Total Cost : Rs.108.873 million

Duration : Three years (1988-90)

Objectives : To improve the quality of Primary Education.

To increase access to primary schools particularly in rural areas by providing educational facilities and learning materials.

To reduce the wastage by reducing drop-out and repetition rates through adequate accommodation and working conditions with improved facilities.

Targets : Construction of 516 class rooms

Construction of 255 store rooms

Construction of 255 latrines.

Furniture & Learning/teaching material for 255 primary schools

Establishment of project Implementation Unit.

Brief Implementation: The project is moving at a smooth pace.

USAID PRIMARY EDUCATION DEVELOPMENT PROJECT.

Brief Description :Universalization of Primary Education is a major step towards removal of illiteracy. Consequently a project for achieving universal primary education with the assistance of USAID has been launched in Baluchistan and NWFP. This project is for improvement of Primary Education especially in rural areas and also for females.

Area Coverd : NWFP and Baluchistan Provinces.

Total Cost : US $ 280 million

Duration : Ten years (1989-99)

Objectives : Development and distribution of learning materials

Improvement of the instruction, teacher training.

Improvement of supervision administration and management.

Provision of facilities/commodities.

Provision of cost-effective incentives.

Initiation of research and development (R&D) activities.

Targets : Increase in enrolment upto 3,130,000.

Construction of 5000 new schools.

Upgradation of 500 schools to middle school.

Construction of buildings for Elementary Colleges in NWFP & Bal.

Establishment of separate Directorate of Primary Education.

Training of all project area school teachers.

Brief Implementation:

The project has been started and some feasibility studies in the areas of primary school management, school construction, teacher incentives, etc have been launched.

PRIMARY EDUCATION CURRICULUM REFORM PROJECT.

Brief Description: This is a project sponsored by UNICEF. In this project a new concept of development of curriculum and instructional material by involving class-room teachers and according to the needs of the community will be experimented with.

Area Coverd : All Provinces (8 Districts)

Total Cost : Rs.118.84 million

Duration : 7 years (1990-96)

Objectives :

Targets: Need Oriented Curriculum Development in 8 Districts.

Teacher Training

Research.

Equipment

Vehicle

Brief Implementation:

PRIMARY EDUCATION SYSTEM IN PAKISTAN

Education is on the concurrent legislative list in the constitution of Islamic Republic of Pakistan. The Federal Government has the overall policy making, coordinating and advisory authority. The provincial governments are fully responsible for all other maters relating to the implementation of education policy, organization, administration, and arrangement of the school system within the respective provinces.

2. The government is giving highest priority to primary education, universal primary education being its cherished goal. The primary school in Pakistan comprises grade-I to grade-V. There are at present about 120,000 primary schools in the country. The 7th 5-year Plan (1988-93) contemplates to provide primary education facility within easy reach (1.5 k.m) of every child. It also envisages to strengthen the existing schools by providing extra class rooms, teachers and furniture etc.

Entry Age and Enrolment:

The entry age for class-I is five years and above. Normally 5-9 is considered as the primary school age. Currently the number of children enrolled in primary schools is 9.0 million. The participation rate at primary level is 51.00% There have been great disparaties in participation rates between rural and urban and male and female population.

The targets envisaged at the end of the 7th Plan (1992-93) clearly reflect that there is a heavy emphasis on promotion of primary education in rural areas and for female population during the 7th 5-Year Plan (1988-93).

Curriculum

The curriculum for primary classes is controlled by the Federal Ministry of Education but provides certain degree of flexibility according to the local conditions. All the four provinces have Curriculum Research&Development Centres. These curriculum centres and Text-book Boards can exercise flexibility according to the local environment within the broad outlines and objective prescribed by the Federal Ministry. The subjects taught at primary level include language (Urdu and one regional language in Sind and NWFP), Social Studies, Science, Mathematics and Islamiyat. Recently,integrated Curriculum & Textbooks have been implemented in about all provinces of the country in class I-II.

Primary School Teacher

Basic qualification for the primary school teacher is matric with one year pedagogical training and is called primary teaching certificate (PTC). Normally atleast two teachers are provided in every school with provisions for extra teachers if enrolment so demands. There are no specialized subject teachers in primary schools, every teacher has to teach all the subjects to the class or classes given in his/her charge. There are separate Teacher Colleges/Institutions for male and female teachers.

The PTC course has duration of 38 working weeks. The courses comprise a mix of theory and methodology of teaching with knowledge from supporting discipline such as philosophy. Sociology, guidance, evaluation, testing and measurement. Primary course is also covered during the PTC Programme.

School Calender:

The school week for Pakistan primary school children consists of 5 full and one half days. The official school Calender is 212 days but in practice the number of days in actual session is about 180. The school Calender is from Ist April to 31st March with a summer vacation of two and half month (during June-August), a Winter break for two weeks at the end of December and short Spring holidays during the first week of April. In order to improve quality Government of Punjab has changed the Calender year from March to January so that children have enough time for schooling before Summer Vacation which start from June. In case of Sind the school calender is changed from March to August also keeping in view the Summer Vacations which are generally from June to August. The objective is that the children continue schooling period without break of Summer vacations.

Student Evaluation:

The final examination is held at the end of each academic year. Those who pass, move to the next grade while those who fail repeat the same class.

Management:

The education under the constitution is a provincial subject. The Federal Government has only the policy making, coordinating and advisory authority.

The Ministry of Education is the overseer and guardian of the country's educational system. Its main responsibility is to ensure that national education policies, objectives and standards are observed and implemented by all concerned. Three Wings of the Ministry of Education namely Planning and Development Wing, Curriculum Wing and Primary and Non-formal Education Wing are directly concerned with the Primary Education in the country. Each of these Wings is headed by a Joint Educational Adviser/Joint Secretary (JEA/JS), who is responsible to the Federal Education Secretary. The JEA/JS is assisted by Deputy Educational Advisers/Deputy Secretaries who in turn are assisted by Assistant Educational Adviser, Education Officers and Research Officers in the discharge of their duties.

The down-ward educational hierarchy in all the provinces, except Sind, consists of either a Directorate of Public Instruction or a Directorate of Education (Schools) at the provincial level to which the divisional directorates of education are immediately responsible. In Sind, the regional directorate of schools education are directly responsible to the Secretary of Education since there is only one directorate of school education for the entire province. In Baluchistan, there are currently no divisional directorates of education. The functional line of administration goes directly from the Directorate of Education (Schools) to the district education officers.

Each provincial Department of Education is headed by a Minister who, normally is not an educationist but a political officer and a member of the provincial cabinet, in-charge of educational matters. The administrative head and the Chief Executive Officer is the Education Secretary, who is usually a professional educator and or member of the Civil Service of Pakistan, which is career administrators cadre.

Directorates of School Education:

To the provincial structure so far described must be added the directorates of education (Schools), at provincial level (except in Sind) which carry out field functions covering specific areas. Each Directorate is headed by a director.

The provincial directorate of Education (Schools) is the hub of management over primary, middle and secondary schools in the province.

Keeping in view the expansion of primary education throughout the country, an Additional Directorate of Primary Education has been established in the province of Punjab. In Sind, a separate set up in the Provincial Education Department under Additional Secretary Education has been established to manage and supervise primary education. In NWFP and Baluchistan, separate Directorates for primary education will be established shortly.

The field components of the Directorates of Education (Schools) consist of the Divisional Directorates of Education (Schools), the District Education and Sub-Divisional Education Officers. There are also slight variations among the provinces in the organizational structures at these levels, but these variations do not alter the basic pattern.

Educational management at the district level is the responsibility of District Education Officer. However, at the district level, the management has been further decentralized. There are Deputy District Education Officers, Sub-Divisional Education Officers and Assistant Education Officers, with varying degree of autonomy and power in different provinces, who assist the DEO's in the management of primary education in the district. A new tier of Learning Coordinator has also been introduced under the World Bank sponsored Primary Education Project. The Learning Coordinator is a professional guide of working teachers.

Appendices.

1. Number of Institutions by level of School, Province and sex from 1985-86 to 1989-90.
2. Number of Students by level of school, class and sex from 1985-86 to 1989-90 in Pakistan.
3. Number of Teachers by level of School, province and sex from 1985-86 to 1989-90.
4. Number, Enrolment and Teachers of Mosque schools.
5. Literacy Ratio of Pakistan and provinces for 10 years and above on the basis of 1981 census.
6. Allocation for Primary Education
7. Number of schools , Enrolment and Teachers at middle and secondary level of education.
8. Diagramatic structure of Education system in Pakistan.

NUMBER OF INSTITUTIONS BY LEVEL OF SCHOOL, PROVINCE AND SEX FROM 1985-86 TO 1989-90.

Level of School/Sex		1985-86	1986-87	1987-88	1988-89	1989-90
TOTAL PRIMARY SCHOOL	Male	54766	56794	58966	61293	63785
	Female	22441	23637	24906	26253	27683
	Total	77207	80431	83872	87546	91471
N.W.F.P.	Male	7200	8015	8922	9931	11055
	Female	2242	2389	2546	2714	2893
	Total	9442	10404	11468	12645	13948
PUNJAB	Male	29711	30005	30302	30602	30905
	Female	16488	17493	18560	19693	20896
	Total	46199	47498	48862	50294	51799
SIND	Male	11824	12518	13252	14028	14849
	Female	2806	2834	2862	2890	2918
	Total	14630	15352	16114	16918	17768
BALUCHISTAN	Male	4399	4565	4737	4915	5100
	Female	474	481	489	498	508
	Total	4873	5046	5226	5413	5608
F.A.T.A.	Male	1290	1348	1409	1473	1541
	Female	293	301	309	317	325
	Total	1583	1649	1718	1790	1866
F.A.N.A.	Male	342	343	344	345	346
	Female	138	139	140	141	142
	Total	480	482	484	486	488

Appendix-2

NUMBER OF STUDENTS BY LEVEL OF SCHOOL, CLASS AND SEX FROM 1985-86 TO 1989-90 IN PAKISTAN.

Level of School/Sex		1985-86	1986-87	1987-88	1988-89	1989-90
PRIMARY STAGE (I-V)	Male	4683651	4767465	4854222	4944027	5036990
	Female	2365408	2430236	2498135	2569261	2643781
	Total	7049059	7197701	7352357	7513278	7680726
CLASS-I	Male	1636017	1670084	1705431	1742109	1780171
	Female	893212	905734	918707	932145	946063
	Total	2529229	2575818	2624138	2674254	2726233
CLASS-II	Male	811738	822018	832660	843675	855073
	Female	479362	493870	509020	524844	541375
	Total	1291100	1315888	1341680	1368516	1396438
CLASS-III	Male	859541	870835	882470	894456	906802
	Female	395207	410313	426220	442976	460632
	Total	1254748	1281148	1308690	1337423	1367400
CLASS-IV	Male	748883	763758	779123	794996	811394
	Female	330967	344289	358346	373184	388851
	Total	1079850	1108047	1137469	1168174	1200223
CLASS-V	Male	627472	640770	654538	668794	683557
	Female	266660	276030	285842	296120	306888
	Total	894132	916800	940380	964912	990440

Appendix-3

NUMBER OF TEACHERS BY LEVEL OF SCHOOL, PROVINCE AND SEX FROM 1985-86 TO 1989-90.

Level of School/Sex		1985-86	1986-87	1987-88	1988-89	1989-90
TOTAL PRIMARY SCHOOL TEACHERS	Male	123385	125086	126860	128709	130637
	Female	57237	58306	59400	60520	61666
	Total	180622	183392	186260	189229	192303
N.W.F.P.	Male	16482	16828	17181	17541	17909
	Female	4669	4767	4867	4969	5073
	Total	21151	21595	22048	22510	22982
PUNJAB	Male	66398	66623	66849	67076	67304
	Female	33596	34163	34740	35327	35925
	Total	99994	100786	101589	102403	103229
SIND	Male	29560	29911	30266	30625	30988
	Female	17293	17607	17927	18253	18585
	Total	46853	47518	48193	48878	49574
BALUCHISTAN	Male	5902	6443	7033	7676	8378
	Female	770	823	880	941	1007
	Total	6672	7266	7913	8618	9385
F.A.T.A.	Male	4366	4594	4834	5087	5353
	Female	769	793	818	844	871
	Total	5135	5387	5652	5930	6224
F.A.N.A.	Male	677	687	697	707	717
	Female	140	153	168	185	205
	Total	817	840	865	892	922

Appendix- 4

NUMBER, ENROLMENT AND TEACHERS OF MOSQUE SCHOOLS.

AREA	NO. OF MOSQUE SCHOOLS.	NO. OF TEACHERS	ENROLMENT
PAKISTAN	21,983	22,798	T= 625055 M= 456900 F= 168155
PUNJAB	9,423	6,363	T= 209369 M= 175027 F= 52342
SIND	7,375	7,375	T= 226523 M= 166519 F= 60004
N.W.F.P.	3,192	6,334	T= 128075 M= 128075 F= --
BALUCHISTAN	1,993	2,176	T= 61088 M= 57279 F= 3809

Appendix-5

LITERACY RATIO OF PAKISTAN AND PROVINCES FOR 10 YEARS AND ABOVE ON THE BASIS OF 1981 CENSUS.

SEX	TOTAL	URBAN	RURAL
1) PAKISTAN			
BOTH SEXES	26.2	47.1	17.3
MALE	35.1	55.3	26.2
FEMALE	16.0	37.3	7.3
2) BALUCHISTAN			
BOTH SEXES	10.3	32.2	6.2
MALE	15.2	42.2	9.8
FEMALE	4.3	18.5	1.8
3) N.W.F.P.			
BOTH SEXES	16.7	35.8	13.2
MALE	25.9	47.0	21.7
FEMALE	6.5	21.9	3.8
4) PUNJAB			
BOTH SEXES	27.4	46.7	20.0
MALE	36.8	55.2	29.6
FEMALE	16.8	36.7	9.4
5) SIND			
BOTH SEXES	31.5	50.8	15.6
MALE	39.7	57.8	24.5
FEMALE	21.6	42.2	5.2

SOURCE: POPULATION CENSUS ORGANIZATION.

Appendix-6

ALLOCATION FOR PRIMARY EDUCATION (Rs. in Million)

	85 - 86			86 - 87			87 - 88			88 - 89			89 - 90		
	Develpment	Recurring	Total	Develpment	Recurring	Total	Develpment	Recurring	Total	Develpment	Recurring	Total	Develpment	Recurring	Total
PUNJAB	140.000	2222.300	2362.300	306.777	---	306.777	530.477	2883.110	3413.587	351.848	3293.352	3645.200	228.815	4385.770	4614.585
SIND	154.022	882.657	1036.679	271.984	---	271.984	320.732	1196.623	1517.355	310.961	1268.305	1579.266	290.000	---	290.000
NWFP	117.072	476.909	593.981	209.864	---	209.864	176.960	787.922	964.882	174.136	909.876	1084.012	218.939	1041.548	1260.487
BALUCH.	31.432	167.162	198.594	34.743	---	34.743	66.214	325.102	391.316	54.556	361.000	415.556	57.954	441.000	498.954
FEDERAL	47.823	45.874	93.697	56.745	59.796	116.541	51.090	62.189	113.279	41.841	78.281	120.122	1159.800	91.009	1250.809
TOTAL	490.349	3794.902	4285.255	880.113	59.796	939.909	1145.473	5254.946	5367.419	933.342	5910.814	6844.156	1955.508	5959.327	7914.835

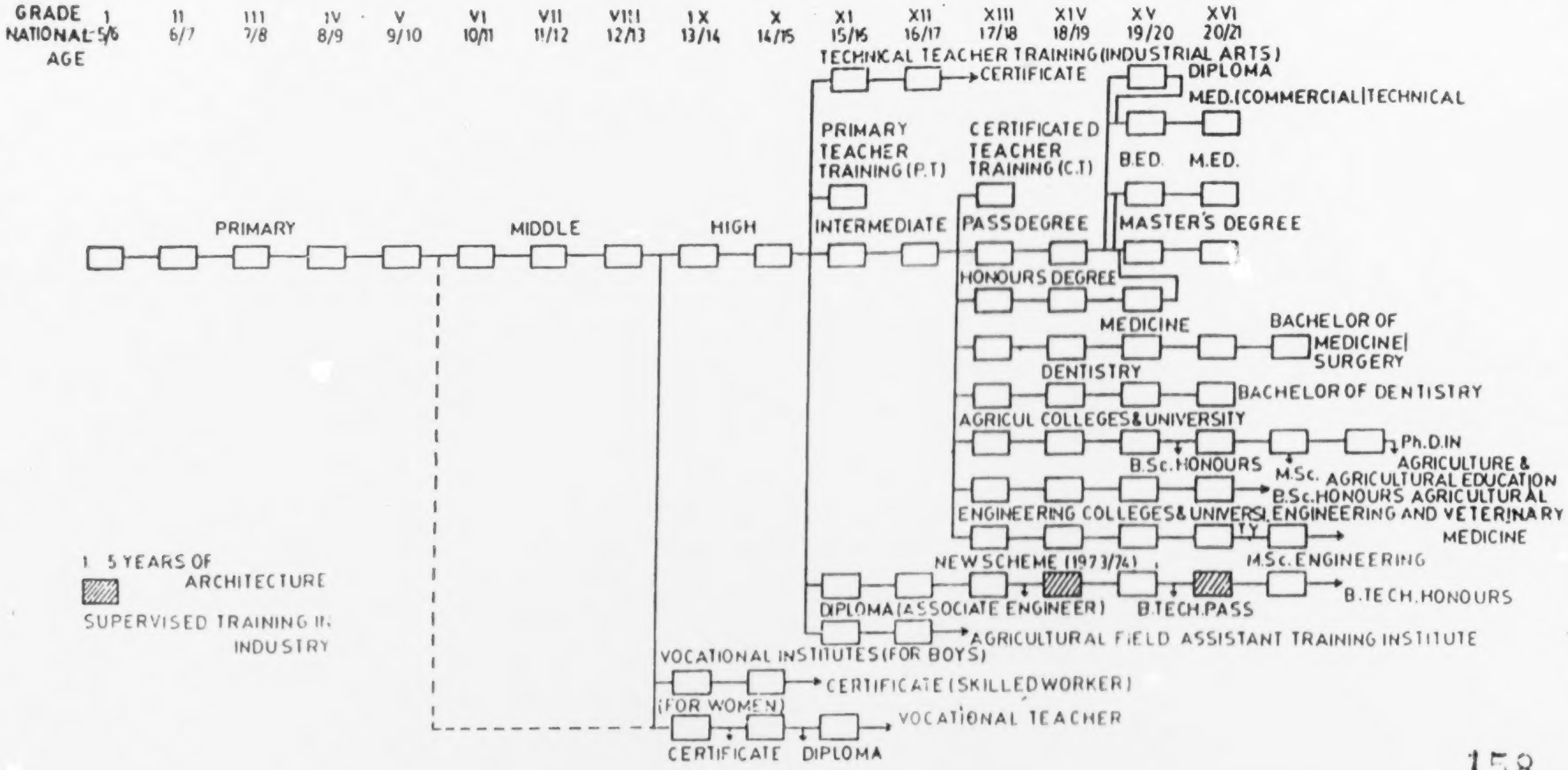
PAK 44

Appendix-7

NUMBER OF SCHOOLS, ENROLEMENT AND TEACHERS AT MIDDLE AND SECONDARY LEVELS OF EDUCATION.

		1986-87	1987-88	1988-89	1989-90
Middle Stage					
Schools:	Male	4707	4832	4842	4933
	Female	2062	2161	2162	2228
	Total	6769	6993	7004	7161
Enrolement:	Male	1469553	1460064	1592766	1735582
	Female	553811	593364	626282	661213
	Total	2023364	2053428	2219048	2396795
Teachers:	Male	40641	42547	45508	47318
	Female	17605	19022	20172	20894
	Total	58246	61569	65680	68212
Secondary Stage					
Schools:	Male	3715	3890	4026	4128
	Female	1538	1602	1668	1749
	Total	5253	5492	5694	5877
Enrolement:	Male	521276	541751	565336	588293
	Female	186829	203263	216151	231722
	Total	708105	745014	711587	820015
Teachers:	Male	63913	67998	70499	72780
	Female	28964	31765	34353	35370
	Total	92877	99763	104852	108150

STRUCTURE OF THE EDUCATIONAL SYSTEM (Formal only)


GRADE
NATIONAL AGE
I 5/6
II 6/7
III 7/8
IV 8/9
V 9/10
VI 10/11
VII 11/12
VIII 12/13
IX 13/14
X 14/15
XI 15/16
XII 16/17
XIII 17/18
XIV 18/19
XV 19/20
XVI 20/21
PRIMARY
MIDDLE
HIGH
INTERMEDIATE
TECHNICAL TEACHER TRAINING (INDUSTRIAL ARTS)
CERTIFICATE
DIPLOMA
MED. (COMMERCIAL|TECHNICAL
PRIMARY TEACHER TRAINING (P.T)
CERTIFICATED TEACHER TRAINING (C.T)
B.ED.
M.ED.
PASS DEGREE
MASTER'S DEGREE
HONOURS DEGREE
MEDICINE
BACHELOR OF MEDICINE| SURGERY
DENTISTRY
BACHELOR OF DENTISTRY
AGRICUL COLLEGES & UNIVERSITY
B.Sc. HONOURS
M.Sc.
Ph.D. IN AGRICULTURE & AGRICULTURAL EDUCATION
B.Sc. HONOURS AGRICULTURAL ENGINEERING AND VETERINARY MEDICINE
ENGINEERING COLLEGES & UNIVERSITY
M.Sc. ENGINEERING
NEW SCHEME (1973/74)
DIPLOMA (ASSOCIATE ENGINEER)
B.TECH. PASS
B.TECH. HONOURS
AGRICULTURAL FIELD ASSISTANT TRAINING INSTITUTE
VOCATIONAL INSTITUTES (FOR BOYS)
CERTIFICATE (SKILLED WORKER)
(FOR WOMEN)
CERTIFICATE
DIPLOMA
VOCATIONAL TEACHER
1. 5 YEARS OF ARCHITECTURE
▨ SUPERVISED TRAINING IN INDUSTRY

PAK 46